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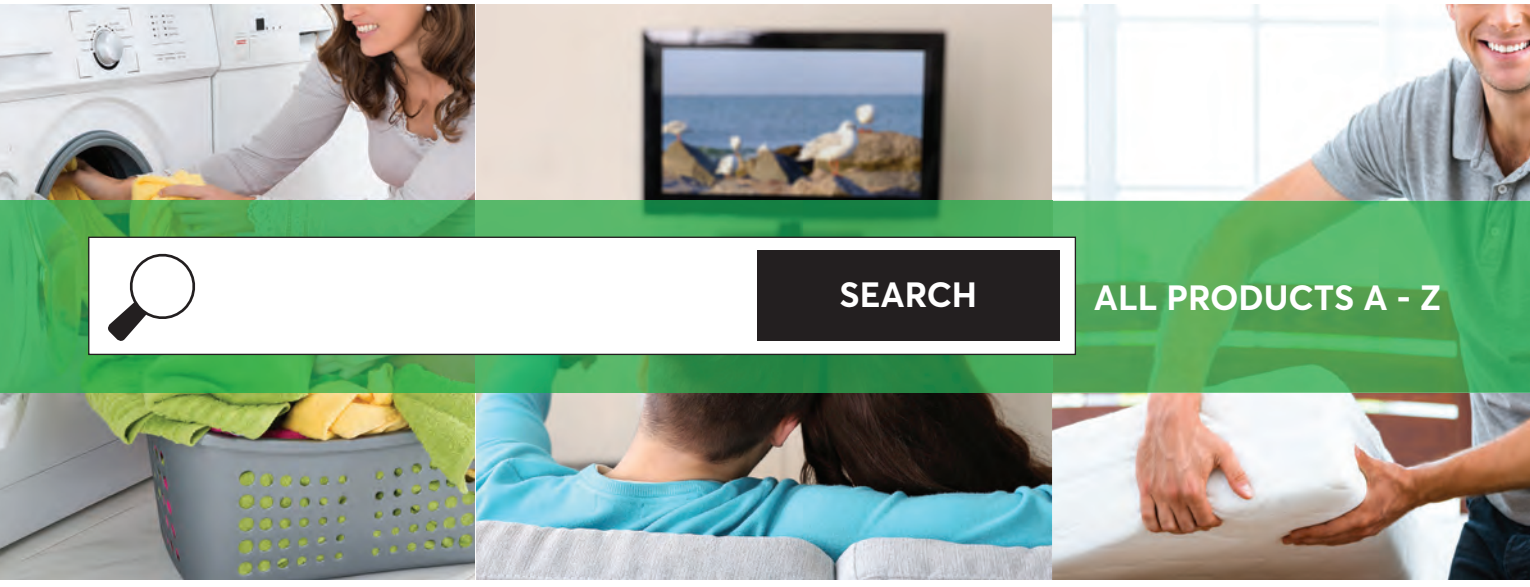

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TOYOTA CAMRY

87 OVERALL SCORE

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PHOTOS: TIM KLEIN (TOP); BRIAN FINKE (BOTTOM LEFT)

COVER ILLUSTRATION BY MITCH BLUNT

'Tis the Season for Stress-Free Shopping

YOUR HEART RATE increases. Your blood pressure spikes. You hit a sudden wall of fatigue. Are you taking a final exam, rushing to catch a flight, or leading the Tour de France? No—you're just shopping for holiday gifts. It may sound incredible, but a study conducted last year by the e-commerce giant eBay found that the stress of holiday shopping can increase your heart rate the same way that vigorous physical activity does. As more Americans opt out of long lines and traffic jams in favor of an online shopping experience, they may be putting a portion of that stress behind them—but they are also entering a complex marketplace that comes with challenges and headaches of its own.

This month, we're focused on helping you be smart and stay serene as you tackle the holiday shopping season. We've got the latest tips on how to avoid paying more than you have to for online purchases, guidance to help you steer clear of scams and cybercrimes, and the best advice for protecting your online privacy. Finding gifts to give your loved ones shouldn't have to be stressful—and when you're saving money, safeguarding your personal information, and making the smartest choices for you and your family with help from CR's team of experts, it won't be.

Marta Tellado

Marta L. Tellado,
President and CEO
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PHOTO: MELANIE DUNEA

What's on Your Plate?

WHAT'S AT STAKE

A food product recall is the last line of defense for keeping contaminated food off store shelves and out of our kitchens. But there's a hitch: Not all recalls are created equal.

The Food and Drug Administration doesn't always alert consumers to the store names and locations of where recalled products were sold. The agency has defended these inconsistencies by pointing to an obscure and broad interpretation of what qualifies as "confidential commercial information" under the Freedom of Information Act.

For example, when the FDA announced a recall in May of frozen raw tuna cubes imported from Indonesia that tested positive for hepatitis A, the action included retailer and location specifics. But when the agency announced a recall last year of strawberries imported from Egypt that also tested positive for hepatitis A, it declined to offer those same details.

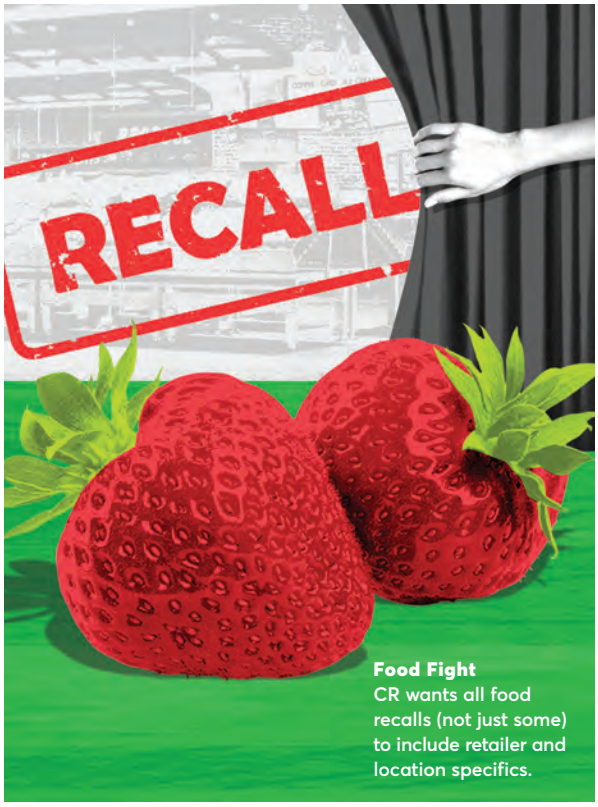
There is a small window to get vaccinated against hepatitis A after exposure, so sharing those locations could have helped mitigate the multistate outbreak traced to the berries.

HOW CR HAS YOUR BACK

CR believes that specific retailer details should be released in the wake of every recall and is asking the FDA to address this inconsistency. Along with 10 other consumer and public health organizations, CR sent a letter to the agency urging a policy change. We think consumers should be armed with as much information as possible to protect themselves and their families.

WHAT YOU CAN DO

Go to recalls.gov/food.html to make sure you didn't pick up dangerous items during your recent grocery shopping trips.



Food Fight
CR wants all food recalls (not just some) to include retailer and location specifics.

A Path to Safer Roadways

WHAT'S AT STAKE

CR continues to speak up in the escalating debate over the safety of self-driving vehicles. Some new cars already let the driver hand over partial control to the vehicle in certain situations (such as adaptive cruise control), and automakers are pushing to bring fully autonomous rides to the road in the near future.

HOW CR HAS YOUR BACK

As we reported in this column back in October, our advocates have testified before Congress about how self-driving cars could dramatically reduce the number of crashes, because the vast majority of collisions are caused by human driver error. However, CR believes we need sensible, binding standards for ensuring that the rollout of these cars doesn't happen without clear safety evidence.

Recently, the Department of Transportation announced a weakening of its industry guidelines. The government says doing so will help accelerate development and spur innovation. But we strongly disagree and think that the DOT should be putting tougher safeguards in place, not rolling back the current voluntary guidelines.

Coincidentally, this disappointing move by the DOT happened on the very same day as an announcement that Tesla's Autopilot system played a major role in a 2016 fatal crash.

Congress is working on new legislation after the House approved a bill that included some safety measures recommended by CR, but we believe it still has too many loopholes. CR is back on Capitol Hill advocating for improvements.

WHAT YOU CAN DO

Contact your members of Congress at house.gov and senate.gov to urge them to approve real safety standards for self-driving cars.

A New Level of Security

WHAT'S AT STAKE

The breach at Equifax compromised sensitive data for nearly half of all Americans.

HOW CR HAS YOUR BACK

For years, CR has called on the government to crack down on breaches. Our latest petition to Congress has attracted more than 200,000 signatures. We are pressing Congress for tougher standards, including civil penalties.

We believe that Equifax's help for impacted consumers was anemic and inadequate. In a letter to the company, we stated that it has an obligation to do whatever it can to make consumers whole and laid out a list of actions Equifax should take, such as establishing a fund to compensate identity theft victims. At press time, we were still waiting for a reply.

WHAT YOU CAN DO

Sign our data security petition, at **ConsumersUnion.org/Equifax.**

A VICTORY FOR CONSUMERS

As a result of a joint investigation by ProPublica and CR, California regulators required Nationwide and USAA to adjust their auto insurance rates. While reporting our July issue article "A World Apart," we discovered that on average USAA charged 18 percent more and Nationwide 14 percent more in poor minority neighborhoods than in whiter ones with similar accident costs. To read our story, go to CR.org/insurance1217.

Caring for Aging Loved Ones

In our October 2017 "Who Will Care For You?" article, we examined the cost and quality of assisted living options. It generated many comments from residents, caretakers, and advocates alike. To join the conversation, go to CR.org/care1217.

VALUE. THAT IS what CR delivers consistently, again and again. I thank you for that. But this letter is about "Who Will Care for You?" I cannot tell you how many people in my family have pored through that article as they think about their senior years. The piece is well-researched and well-written. But the real benefit is the topic itself. You provide some much-needed relief to people who are anxious and seeking ways to think about the months and years ahead.
–Robert L. Dilenschneider, New York City

WRITE

Go to CR.org/lettertoeditor to share your comments for publication.

I READ "Who Will Care For You?" and compliment you on a very thorough and well-written article on a complicated subject. I have been involved for years with a local nonprofit organization called Pima Council on Aging as both a volunteer and a member of its board of directors. PCOA and like organizations around the U.S. are a good place to start when families do not have a good idea of sources of information for issues related to seniors, including caregiving support. There are more than 600 groups, including PCOA, in the U.S. that are members of the National Association of Area Agencies on Aging. They are an extremely good resource for seniors and their families on local caregiving services and other issues impacting older adults.
–Terry Allen, Tucson, AZ

IN MAY of 2011, our broker sold my wife and me (then ages 62 and 64) a long-term-care policy with annual premiums of $4,772.40. In March of this year, after six years of claim-free coverage, we were notified that the annual premium would increase by more than 50 percent, to $7,163.38. The sales pitch encouraging prospects to purchase long-term-care insurance while they're young and premiums are lower is meaningless as long as the insurer can raise premiums at any time. With no protection against future rate increases, going forward we will self-insure–unless and until the industry is willing to share the financial risk rather than placing it entirely on the shoulders of policyholders.
–Gary J. Martin, Ph.D., College Station, TX

EDITOR'S NOTE *As we noted in the "Long-Term-Care Insurance Gets a Makeover" section of our article, traditional long-term-care insurance has never been more expensive–and there could be further premium hikes down the road. So anyone considering buying a policy should first make sure they will be able to absorb rate increases as the years go by.*

YOUR ARTICLE SURE struck a chord. I helped my mother with the care of her parents in facilities, and then both my spouse's and my parents were in facilities. Lessons we learned beyond your advice included: befriending the orderlies and housekeeping staff to learn what is really going on, reviewing medication administration records, and requiring frequent meetings with management (if necessary).
–Jeffrey Miller, Mechanicsville, VA

AS SOMEONE WHO has been a long-term advocate for seniors and individuals with disabilities, I applaud your article "Who Will Care for You?" One area that you failed to emphasize is state Medicaid benefits. Depending on the state in which an individual resides, there can be comprehensive home care and other services designed to keep individuals safely at home. Each state has its own Medicaid system. Often there are ways to receive Medicaid-funded care and protect some or all assets, and it is important for potential care recipients to contact experts, such as elder-care attorneys.
–Allen Rosen, Brooklyn, NY

EDITOR'S NOTE *You're correct that Medicaid benefits can be used to pay for care at home, but these services may be limited. The rules vary by state. To find out about eligibility, it makes sense to consult a local elder-law attorney or contact your Area Agency on Aging. But note that Medicaid does not cover room*

and board costs for assisted living. For information on at-home care, turn to "Getting Help At Home" (Part 2 of this article), on page 40 of this issue.

I FOUND that assisted-living places have become masters at controlling online info and reviews. Even the best online sleuth won't be able to uncover the truth. Sadly, many ombudsmen are compromised. My top tip: Talk to as many current residents and families of residents as possible.
–Mike Stiles, via CR.org

Two Sides to 'Sin Taxes'

"THE NEW WAR ON OBESITY" (October 2017) is quite interesting. The number of jobs requiring heavy physical labor has decreased tremendously, and children are less engaged in physical chores and outdoor activity and spend more time as "couch potatoes" inside on their computers and watching TV. Perhaps we should find ways to tax the use of the internet and television and use the income to subsidize the development of physical activity programs.
–David W. Briggs, Marion, MA

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I LOVED DIET SODA and felt it wasn't a problem because it was calorie-free. Then all the research came out about how bad the fake sugar was for your body, and I was still gaining weight. So I got a carbonator and switched to soda water. I tell the kids that they can have either a treat or a soda, but not both because soda is candy. I hear a lot of whining, but my kids have never struggled with their weight or had a cavity!
–Ree Lorr, via CR.org

TAXING SUGARY DRINKS and foods deemed unhealthy seems like a good idea on the surface, but it is too often used to feed bloated government bureaucracies and spending habits. Perhaps if the taxes were used to subsidize healthier food choices for those who can least afford it, it would prove more feasible. Feeding the government money addiction with our bad habits is a slippery slope and leaves open to interpretation what is or isn't "healthy."
–William Wells, Ponchatoula, LA

YOU REFER to a 20-ounce serving [of cola] as "average." It used to be that a 12-ounce can and a 16-ounce bottle were the main choices. Part of the problem may be the trend of larger serving sizes in general.
–Chuck Cain, via CR.org

IT IS ALWAYS a tax. This time the excuse is to tax your way thinner. Instead of a stick, for a change, try a carrot. Instead of a "sin tax" how about a "virtue discount" on nutritious items?
–Dennis Meyler, via CR.org

EDITOR'S NOTE *In our survey many of our respondents agreed with you–73 percent said they'd eat more healthy food if it cost less. But research shows that a 20 percent tax tends to reduce unhealthy behavior by about 20 percent while a 20 percent subsidy improves healthy behavior by only about 10 percent.*

Perhaps we should find ways to tax the use of the internet and television.

—David W. Briggs, Marion, MA

Coffee Klatch

I ENJOYED THE ARTICLE "Not Your Average Joe" in the October 2017 issue. It says, "In one study, those who drank one to three cups of coffee per day were 12 to 18 percent less likely to die during the study." My question: What is a "cup" of coffee? On ground-coffee containers it says to use 1 rounded tablespoon of coffee per 6 fluid ounces of cold water, but most mugs are 11 or 15 ounces and my "4-cup" coffee maker makes two of those. Do I limit my intake to three 11-ounce mugs a day or 18 ounces a day? Coffee makers are rated in 6-ounce cup sizes so we think we can make more cups than the ordinary mug.
–Evan Jackson, Virginia Beach, VA

EDITOR'S NOTE *You're right: The size of "a cup" of coffee is not consistent. Federal guidelines say a cup is 8 fluid ounces, but as you note, mug sizes can vary dramatically. A Venti at Starbucks holds 20 fluid ounces. To stay within the government's daily caffeine recommendation (400 mg–the amount in about 16 to 32 ounces of coffee, depending on strength), fill your mug at home with water and pour it into a measuring cup to see how much you're drinking. At shops, ask your barista how many ounces are in your order.*

GOOD ARTICLE, but I was disappointed that cold brew was not mentioned. I have been making cold brew (which takes 12 to 18 hours) for years now because of its low acidity. It is very easy to make at home. I cold brew in a French press.
–Judy Wiles Brookshire, via CR.org

EDITOR'S NOTE *We like cold brew, too. In fact, we wrote about it in our June 2016 issue ("Cold Brew for Hot Days"). When coffee beans are ground coarsely, then mixed with cold or room-temperature water and left for a long time, it can make for a smooth brew, without much of the bitterness and acidity of traditional coffee. For more tips on cold brew, go to CR.org/brew1217.*

I RECENTLY BROKE out my Bialetti Moka pot and brewed some lovely espresso lungo. These little pots aren't really en vogue these days, but I think they do a nice job and add a bit of elegance to the process.
–Harry Kwan, via CR.org

EDITOR'S NOTE *Bialetti is an Italian coffee icon, and it hasn't changed much in the 70 years since its debut. The company claims the octagonal aluminum body is the perfect heat diffuser–whether that's true or not, it does boil quickly. And our experts say the shape makes it easy to screw together, which is critical for getting a tight seal to contain the steam needed for delicious espresso. Bravissimo.*

Dated & Delivered

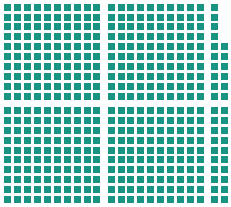
YOUR OCTOBER 2017 issue has no indication on the cover as to the month of the issue. How is one supposed to find a back issue if it is not dated?
–David Burnett, San Francisco

EDITOR'S NOTE *Back by popular demand, the issue you're reading right now has the month and year printed on the upper left corner of the cover–right where many of you, our subscribers, told us you wanted it.*

Product Updates

The latest ratings from our labs

The amount of time and tool energy that went into our drill tests could have built …



436
10x10-foot decks.

Know the Drill

If you have a cordless drill that's more than 5 years old, you don't know what you're missing. Today's models are more powerful and have batteries that run longer and charge faster.

by Paul Hope

KOBALT KDD 1424A-03
Lowe's
$180

68
OVERALL SCORE

Driving Ambition
The Kobalt heavy-duty drill comes with just one battery, but the tool's a top performer with a generous five-year warranty.

IF IT HAS BEEN A WHILE since you picked up a cordless drill, you might be accused of having a screw or two loose. The battery-powered borers in our most recent ratings can drill holes and drive screws far longer—and with more power—than similar models did just a few years ago. So whether you need to drive lag bolts into wall studs to mount a flat-screen TV, drill a hole in your front door to hang a holiday wreath, or install a new door lock, most any of the 24 models in our ratings will be a big step up from whatever old cordless drill you have in your toolbox or kitchen drawer.

Much of the improvement in performance is due to advances in battery technology. "We've seen a 7 to 8 percent improvement in energy density in lithium-ion batteries every year over the past decade," says Simon Mui, a lithium-ion battery expert at the Natural Resources Defense Council. That means a Li-ion battery today might power a drill 50 percent longer than a drill from seven years ago.

Improvements in Li-ion technology also allow cordless drills to "deliver longer run times in a lighter package," according to CR test engineer Frank Spinelli. And now that the charger and motor-speed controller safeguard the Li-ion cells, you no longer have to worry about overcharging or fully draining your batteries.

A handful of drills in our ratings are still powered by nickel-cadmium batteries (the previous standard), but they tend to be lower-end models—and near the bottom of our ratings.

Many of today's cordless drills also benefit from a motor makeover: Not long ago, brushless motors were reserved for contractor-oriented models, but they're now available on modestly priced consumer drills.

A KEY UPGRADE TO CR'S LABS

We're constantly updating the equipment we use to test products in our labs. Keeping pace with technological advancements is how we give you the latest data to inform your buying decisions.

TORQUE AND RPM are the factors used to calculate a drill's power. To measure them in our labs, we rely on a dynamometer, or dyno. But drills have evolved to such a degree, as a class, that the newest lineup would have flat-out overpowered the dyno we'd been using in our labs for decades.

"There's no way we could have tested the new drills on the old dyno," says Frank Spinelli, the Consumer Reports engineer who oversees our cordless-drill testing program.

So to put the newest batch of drills through their paces, we spent $23,000 to upgrade our testing equipment with a new, larger dyno capable of measuring significantly greater torque—more than a typical consumer would ever need. (See the results of our tests in the ratings on page 13.)

"Once you get to a certain point, the drill is really yanking on your arm," Spinelli says. He knows what he's talking about: When he was installing a ductless air conditioning unit at his home not long ago, his cordless drill almost bucked him off the ladder. It was only quick thinking and good reflexes that stopped him from taking a spill. And he wasn't even using one of CR's top-rated drills.

Brushless motors operate with reduced friction, allowing them to spin faster and work more efficiently. They adjust to the level of resistance they encounter when drilling or driving, draining the battery more judiciously than motors with brushes. They also have fewer moving parts, and because they have no brushes, you never need to think about replacing them.

Today's more powerful cordless drills are also changing the rules consumers have traditionally followed when shopping for a new model. An 18- or 20-volt cordless drill should deliver more torque than a 12-volt model, but most cordless drills of any voltage are capable of bigger jobs than they were in the past. Today's 12-volt drills, for instance, can easily drive a few hundred decking screws on a single charge and are probably all the power the typical homeowner needs. But they wouldn't be your first choice for driving large lag bolts. For that you'd want a stout 18-volt model, which can also drill into brick or concrete block.

One thing that hasn't changed? The more powerful the drill, generally, the bulkier and heavier it will be. Which is to say, it's a good idea to consider handling when choosing a drill so that you find the one that best meets your needs. If you ever have a job that requires a more powerful model, you can always rent one from your local home center. But with this latest lineup of cordless models, that's not a trip you'll be taking very often.

WATCH

Go to CR.org/drillsfaceoff to watch a video pitting the top-rated heavy-duty drill against the lowest-rated model.

PHOTOGRAPH BY BRIAN FINKE

More Power to You

Improvements to the battery and motor mean that modern drills work faster and harder—all while being lighter and easier to handle. Here are 6 great choices based on your project size and budget.

GENERAL-USE
12 to 18 volts

Most DIYers will be best served by one of these ⅜-inch-chuck models, which are more powerful than they look: They can bore holes in wood with relative ease and drive a pouch full of screws on a single charge. ***(Note: This category is graded on a curve, so the scores cannot be compared with heavy-duty models' scores.)***

BOSCH
PS32-02 $160

66 OVERALL SCORE

WHAT'S INCLUDED
Two 2.0-Ah batteries, five bits, and a soft-sided case.

CR'S TAKE It's no coincidence that the lone brushless model in our general-use ratings delivers peerless performance. The Bosch is the most powerful tool in its class and, at under 2 pounds, is less than half the weight of some 18-volt drills. It isn't your go-to tool for driving large lag bolts—for that you'll want an 18-volt drill—but it does match some heavy-duty models on run time. It's all the drill most people will ever need.

MILWAUKEE
2407-22 $130

60 OVERALL SCORE

WHAT'S INCLUDED
Two 1.3-Ah batteries and a soft-sided case.

CR'S TAKE This model costs $30 less and performs almost as well as the top-rated Bosch. Its smaller 1.3-Ah batteries drain faster but charge in just 30 minutes—a third of the time the Bosch's battery requires. Milwaukee also makes a dual charger with ports for charging its 12- and 18-volt batteries simultaneously—a smart solution for the serious DIYer who may want an arsenal of power tools for different tasks.

RIDGID
R82005K $100

59 OVERALL SCORE

WHAT'S INCLUDED
Two 1.5-Ah batteries, a single Phillips bit, and a soft-sided case.

CR'S TAKE If you rarely use a drill but still want to have one on hand, this 12-volt Ridgid is the model to buy. For $100 you get everything you need and nothing you don't. The sleek tool has an easy-to-grasp pistol-grip handle, plenty of power, and a slim profile, making it small enough to stash in a drawer. It also comes with a lifetime service agreement that covers replacement of parts that wear.

HEAVY-DUTY
18 or more volts

Built around brawny 18- to 24-volt batteries, these drills have the power to drive large fasteners and bore holes through thick boards. Outfitted with ½-inch chucks, they can accept most any drill bit, including those used for tasks such as drilling into brick.

DEWALT
DCD991P2 $280

85 OVERALL SCORE

WHAT'S INCLUDED
Two 5.0-Ah batteries, a detachable side grip, and a hard-sided case.

CR'S TAKE If power and run time are your top concerns, you won't find a better drill in our ratings than this hefty (almost 5 pounds) 20-volt model. It will leave you feeling like you could build a deck in an afternoon—or maybe a house (assuming you're not bushed from lugging it around). It's the only model with an electronic clutch, which works in combination with the speed setting to deliver a wider range of adjustability.

KOBALT
KDD 1424A-03 $180

68 OVERALL SCORE

WHAT'S INCLUDED
One 2.0-Ah battery, a detachable side grip, one Phillips bit, and a hard-sided case.

CR'S TAKE Exclusive to Lowe's, this 4-pound model delivers a lot of drill for the money—partly because it comes with only one battery, albeit a powerful 24-volt unit. Consider buying a second battery, $50, for larger projects and always keeping one on the charger. The Kobalt will drill plenty of holes fast and performs well enough to be a tackle-any-task drill for the average homeowner.

MAKITA
XFD12R $210

63 OVERALL SCORE

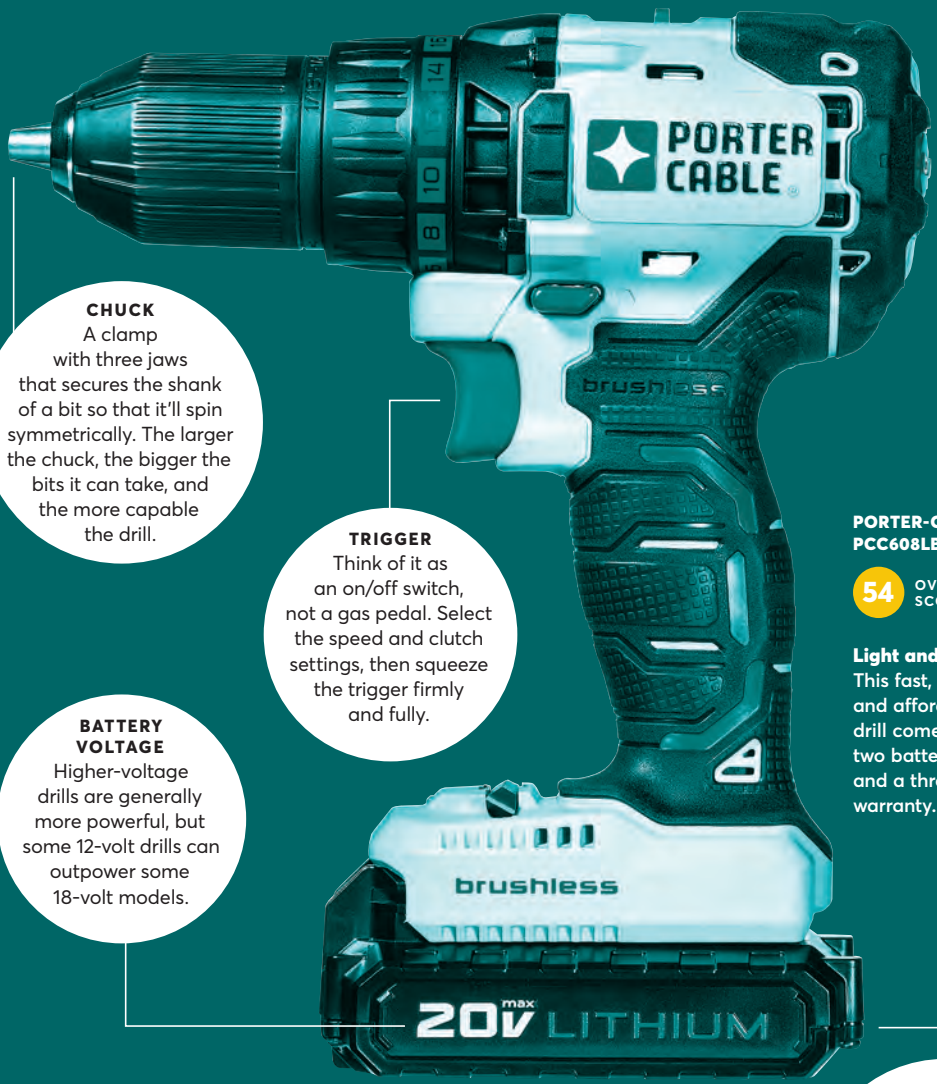
WHAT'S INCLUDED
Two 2.0-Ah batteries and a hard-sided case.

CR'S TAKE Meet the Goldilocks of drills: At a smidge over 3 pounds, this 18-volt model from Makita is neither as brawny as the biggest 18-volts nor as balanced and trim as the best 12-volts. It splits the difference in a good way. It's small enough that you won't tire from using it to replace an overhead light fixture and mighty enough to bore holes in hardwood. Its batteries drain quickly but recharge in only 30 minutes—faster than the rest in this class.

PHOTOS: MIKE BUDNY AND BRENDAN WIXTED

Anatomy of a Drill

Knowing a drill's component parts allows you to avoid common mistakes and handle it less like a DIYer and more like a pro.



CHUCK
A clamp with three jaws that secures the shank of a bit so that it'll spin symmetrically. The larger the chuck, the bigger the bits it can take, and the more capable the drill.

TRIGGER
Think of it as an on/off switch, not a gas pedal. Select the speed and clutch settings, then squeeze the trigger firmly and fully.

BATTERY VOLTAGE
Higher-voltage drills are generally more powerful, but some 12-volt drills can outpower some 18-volt models.

PORTER-CABLE PCC608LB $90

54 OVERALL SCORE

Light and Lively
This fast, light, and affordable drill comes with two batteries and a three-year warranty.

BATTERY AMP HOURS (Ah)
The higher the amp-hour rating, the longer the battery will run between charges and the longer it will take to recharge.

SPEED SWITCH
Slower speeds deliver more torque—good for driving fasteners. Faster speeds are for drilling holes. Caveat: Large-diameter hole saws require more torque, thus a lower speed.

CLUTCH
The clutch limits the amount of force a drill can apply when driving a fastener. Start with the lowest setting and bump it up a few clicks at a time until the screw head stops flush with your work surface.

HOW NOT TO STRIP A SCREW

Grind the edges off a screw head with aggressive drill speed or uneven pressure and you're stuck with a fastener that's neither in nor out. Bingo Emmons, an educator for the National Association of the Remodeling Industry, offers five steps to avoid this fate.

1. DRILL PILOT HOLES. To keep screws from seizing up in wood, first drill a hole to the same depth with a bit barely thinner than the shank of your screw.

2. USE A FRESH DRIVER BIT. A worn or broken bit can slip out of place and continue to spin, stripping the screw head.

3. USE THE CLUTCH. If the setting is too low, the head won't land flush with the work surface; if it's too high, you might bury the head or snap it off. Start low and graduate the clutch until you hit the sweet spot.

4. SQUEEZE THE TRIGGER FIRMLY. Regulate speed with the speed switch, not the trigger.

5. KEEP THE PRESSURE ON. Hold your drill at a 90-degree angle to the screw and make sure your bit is firmly seated in the screw head. Keep pressure applied as you sink the screw.

Five Easy Pieces

You'll find an overwhelming selection of drill attachments at your home center. Here, we narrow the choices down to the handful our experts think will have you thrilled to bits.

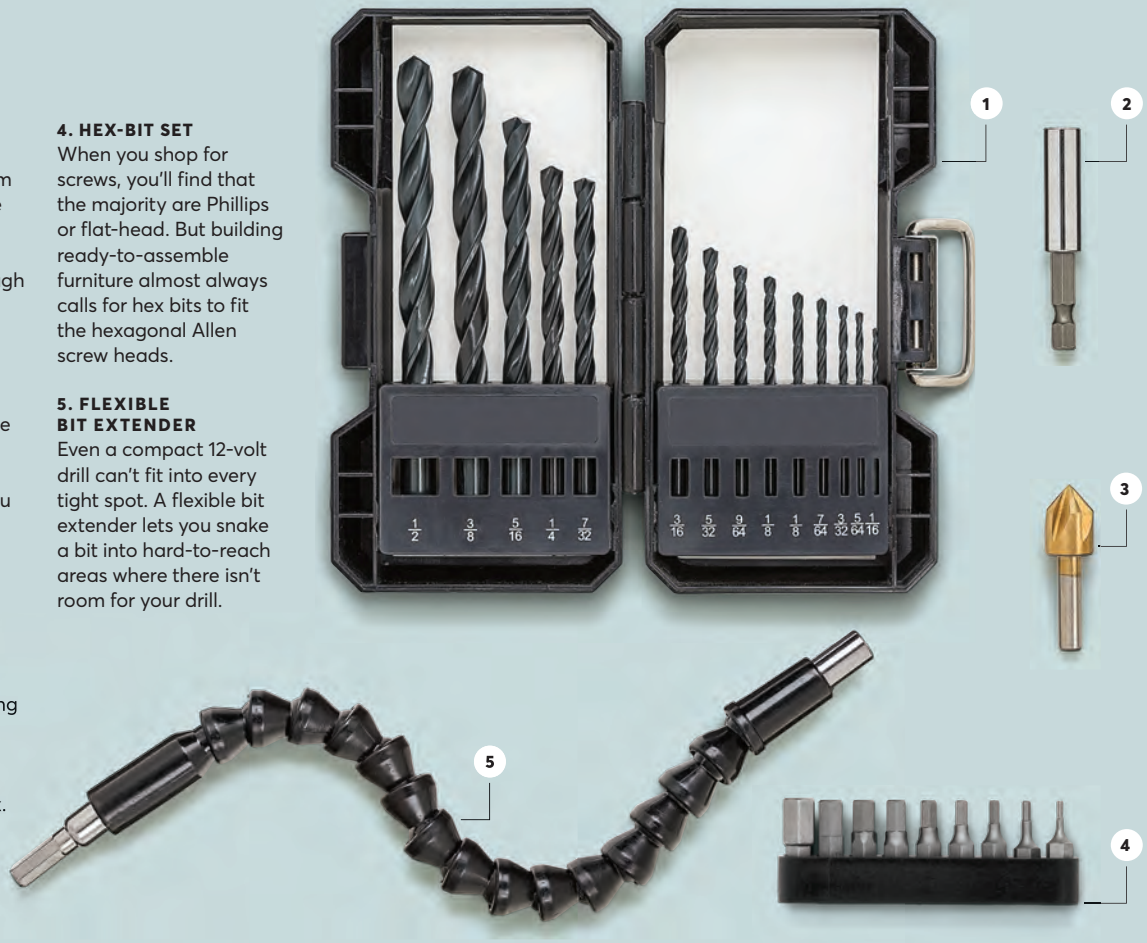
1. BIT SET
Start with a basic set of black oxide or titanium drill bits. They're durable and will easily bore holes in wood, metal, or plastic—as well as through softer surfaces such as drywall and plaster.

2. QUICK-CHANGE BIT HOLDER
Swapping out bits can be time-consuming if you open the chuck each time. A bit holder lets you switch between hole-drilling and driving bits without that extra step.

3. COUNTERSINK
A countersink bores a screw-head-shaped recess into wood, allowing the head of a properly driven screw to sit flush with the wood around it for a clean, finished look.

4. HEX-BIT SET
When you shop for screws, you'll find that the majority are Phillips or flat-head. But building ready-to-assemble furniture almost always calls for hex bits to fit the hexagonal Allen screw heads.

5. FLEXIBLE BIT EXTENDER
Even a compact 12-volt drill can't fit into every tight spot. A flexible bit extender lets you snake a bit into hard-to-reach areas where there isn't room for your drill.



RECALLS

GM VEHICLES
GM is recalling 690,685 2014 model-year Chevrolet Silverado LD and GMC Sierra LD vehicles because they could have a software or electrical problem that causes a temporary loss (and sudden return) of electric power-steering assist. This gap in power makes the steering wheel unexpectedly difficult to turn, which could cause drivers to lose control of the steering.
What to do: Take it to your dealer for a free repair to recalibrate the software.

CHEST OF DRAWERS
Ameriwood Home is recalling about 1.6 million chests of drawers because they are unstable when not anchored to a wall, posing a tip-over and entrapment hazard for children, possibly resulting in injuries or death. The chests were sold at stores nationwide and online at walmart.com from April 2009 through May 2016 for about $60.
What to do: If it's unanchored, stop use. Go to ameriwood.com or call 877-222-7460 for a free anchor kit, as well as feet for the unit.

SLAP BRACELETS
Studio Fun International is recalling about 79,000 "slap bracelets" sold in a DreamWorks "Trolls" storybook set. The bracelet is made with a flexible inner metal band that can wear through its fabric cover and pose a laceration hazard. The book set containing the bracelet was sold at stores nationwide and online from September 2016 through August 2017 for about $13.
What to do: Call the company at 800-489-3402 or go to studiofun.com for more details.

PHOTOS: JOHN WALSH (BITS)

Ratings › **Drill, Baby, Drill** Speed and power are the two key factors in a model's performance. General-use drills are graded on a curve, so their scores are not directly comparable with the heavy-duty models.

POOR – EXCELLENT

CR BEST BUY · RECOMMENDED

Recommended	Rank	Brand & Model	Overall Score	Price	Test Results							Features					
					Speed	Power	Run time	Charge time	Handling	Noise at ear	Weight (lb.)	Volts	Battery type	Battery recharge time (min.)	Speed ranges	Number of batteries included	Warranty
		GENERAL-USE *Typically 12 Volts*															
✓	1	**Bosch** PS32-02	66	$160							2.0	12.0	Li-ion	90	2	2	3 Years
✓	2	**Milwaukee** 2407-22	60	$130							2.4	12.0	Li-ion	30	2	2	5 Years
$	3	**Ridgid** R82005K	59	$100							2.6	12.0	Li-ion	45	2	2	3 Years
	4	**Hitachi** DS 10DFL2	50	$90							2.4	12.0	Li-ion	25	2	2	Lifetime
	5	**Black+Decker** BDCDDBT120C	45	$55							2.5	20.0	Li-ion	225	1	1	2 Years
	6	**Skil** 2860-03	41	$65							3.7	18.0	NiCd	300	1	1	1 Years
	7	**Ryobi** HJP004	33	$50							2.5	12.0	Li-ion	215	1	1	3 Years
	8	**Black+Decker** GCO1200C	30	$35							3.0	12.0	NiCd	360	1	1	2 Years
		HEAVY-DUTY *Typically 18 to 20 Volts*															
✓	1	**DeWalt** DCD991P2	85	$280							4.7	20.0	Li-ion	75	3	2	3 Years
✓	2	**Milwaukee** 2705-22	83	$330							4.7	18.0	Li-ion	95	2	2	5 Years
✓	3	**Kobalt** KDD 1424A-03 (Lowe's)	68	$180							4.0	24.0	Li-ion	85	2	1	5 Years
$	4	**DeWalt** DCD791D2	67	$200							3.4	20.0	Li-ion	90	2	2	3 Years
✓	5	**Makita** XFD12R	63	$210							3.4	18.0	Li-ion	30	2	2	3 Years
	6	**Ridgid** R86116K	62	$180							4.2	18.0	Li-ion	60	2	2	3 Years
	7	**Panasonic** EY 7441 LR2S	58	$270							3.8	14.4	Li-ion	65	2	2	2 Years
	8	**GreenWorks** CK24B220	57	$100							3.8	24.0	Li-ion	50	2	2	4 Years
	9	**DeWalt** DCD780C2	57	$160							3.4	20.0	Li-ion	60	2	2	3 Years
	10	**Porter-Cable** PCC608LB	54	$90							3.2	20.0	Li-ion	90	2	2	3 Years
	11	**Porter-Cable** PCCK600LB	54	$150							3.4	20.0	Li-ion	40	2	2	3 Years
	12	**Bosch** DDB181-02	50	$100							3.2	18.0	Li-ion	60	2	2	3 Years
	13	**Porter-Cable** PCCK601LA	48	$70							3.3	20.0	Li-ion	60	2	1	3 Years
	14	**Ryobi** P1811	48	$100							3.6	18.0	Li-ion	60	2	2	3 Years
	15	**DeWalt** DC970K-2	47	$100							4.4	18.0	NiCd	60	2	2	3 Years
	16	**Hitachi** DS 18DGL	45	$130							3.7	18.0	Li-ion	30	2	2	Lifetime

› Online subscribers can go to CR.org/drillratings1217 for complete, up-to-date ratings.

HOW WE TEST: We use a benchtop dynamometer to test each drill on every speed, under a variety of loads. Then we use those measurements to determine scores for **Speed, Power,** and **Run time. Overall Score** is based primarily on those three scores. **Charge time** is measured by depleting each battery and timing how long it takes to fully recharge. Our experts also use each drill and note aspects such as weight and balance, and use those observations to calculate the score for **Handling.** We measure sound, in decibels, to produce the **Noise at ear** rating.

Insights

Notable news and smart solutions

The average number of digital photos taken each year per U.S. consumer

2010 2016

Source: Keypoint Intelligence's 2010 to 2016 U.S. Digital Camera End-User studies.

Picture Perfect

It's a digital world, but many of us still want a photo to frame and display, especially during the holidays. Use our ratings and expert tips to discover which print-making services are best.

by Tercius Bufete

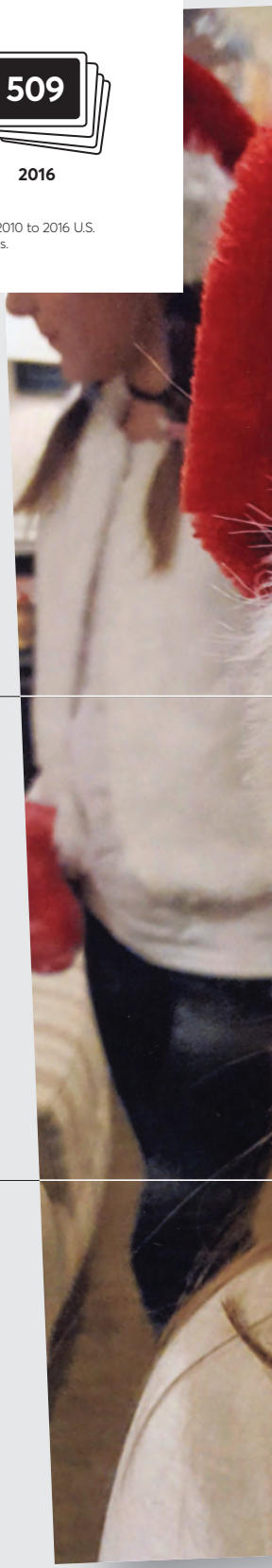
SNAPFISH AND SHUTTERFLY. Walmart and Walgreens. Even Amazon–the king of digital disruption–has jumped into the ring. Today, if you want photos printed, you have a surfeit of services to choose from.

To help you make a selection that will continue to satisfy you even after the photo has been on your mantel for years, we put 10 services through their paces to assess the ordering experience, editing options, and costs. We also enlisted the testers in our labs to rate each one for print quality.

To simulate the average consumer's experience, we asked CR staff to contribute their digital photos. We ordered prints in various sizes and finishes, then tasked our panel of trained photo experts with evaluating the results using the protocol we employ in our printer labs.

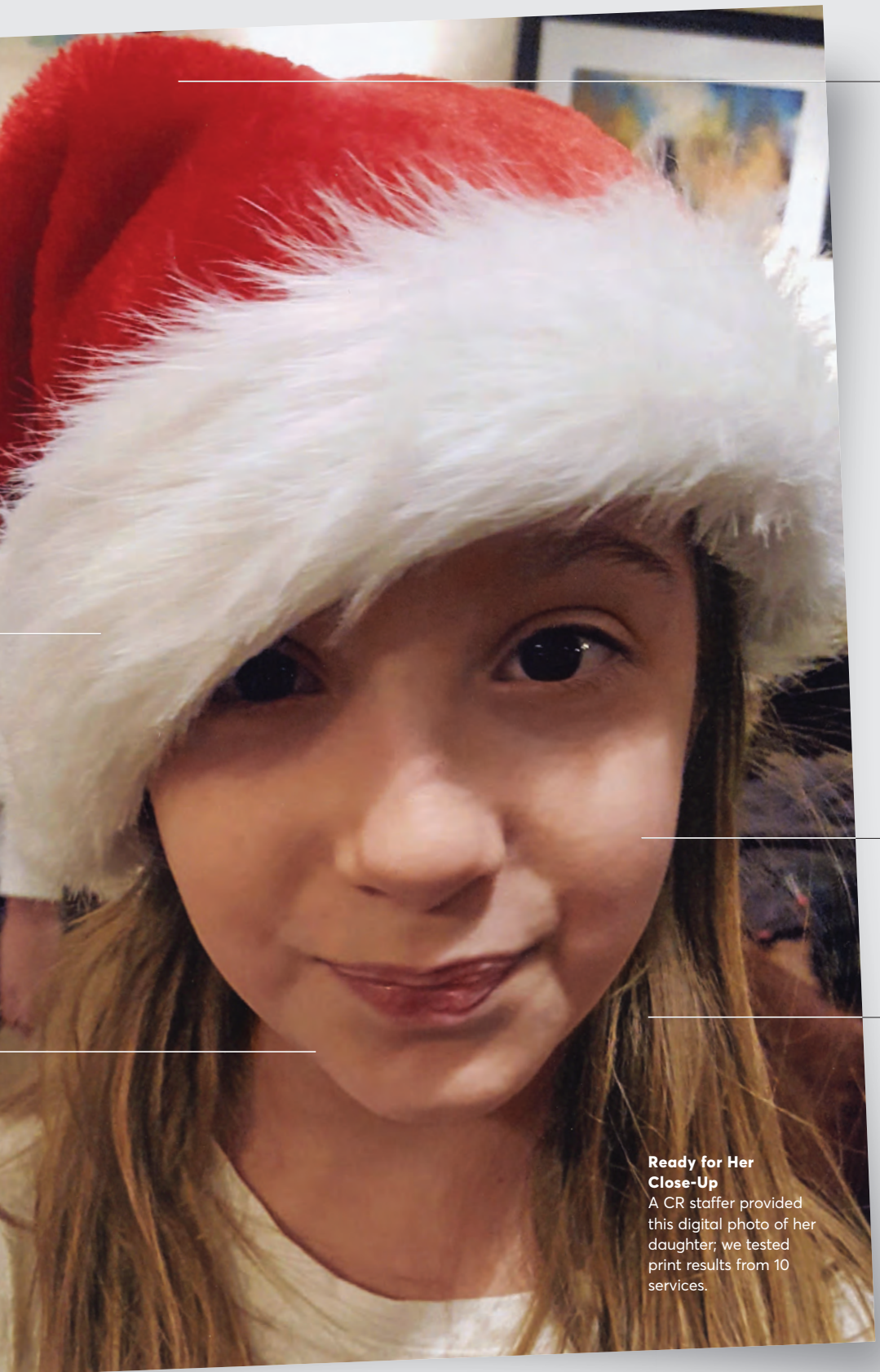
Our testers rated each print on 20 different metrics, including color saturation, sharpness, the accuracy of the flesh tones, lack of streaking or graininess, and the breadth of the image's blacks and whites. All of that data was then telescoped into a numerical score for color, clarity, and contrast. See the scores in "Photo Finish," on page 16.

What Our Testers Judge When They Look at a Photo



Finer things. To receive high marks from our experts, the details in the textured areas of a photo—the strands of hair or fibers in the subject's faux fur Santa hat—need to be crisp and sharp. The shadows on her face should look realistic, not like clots of darkness.

Noise control. To judge how each vendor handled what photographers call "noise," our experts deducted quality points for streaks of color and unsightly dots in the subject's cheeks, which can make the skin look rough and uneven.



Ready for Her Close-Up
A CR staffer provided this digital photo of her daughter; we tested print results from 10 services.

True colors. To gauge color saturation, testers compared the prints from the vendors with a reference photo used in our printer testing. They also looked for even color gradation and subtracted points for blotching.

A healthy glow. The flesh tones are considered the most important component in the overall color score. In the best prints, the skin appears natural, accurate to the original, and neither too red nor too yellow.

Strong contrast. Prints with too much contrast, uneven contrast, or a decline in detail in the shadows and highlights also lost points. Prints with too little contrast look dull, with muted colors.

Cream of the Crop

Photo cropping is the term used to describe what appears in a print and what ends up on the cutting room floor. Each service we tried provided an automatic cropping function that, in most cases, worked well enough. But not always, as you'll see in the examples at right.

To steer clear of cropping woes, avoid images with crucial details on the edge of the frame. And, if you can, preview a service's crops before completing your purchase.

You can also use online tools to crop it yourself. A little cropping can enhance an image, but if you go too far, forcing the software to enlarge one area of the photo—especially on a shot from a cell phone—you're likely to end up with a grainy, muddy, low-resolution image. Amazon, Snapfish, and Nations Photo Lab provided warnings when extreme cropping made the resolution too low.

Bummer

When the image doesn't match the size of the print, Amazon's autocropping centers it on the new frame. "Many digital cameras use a format that will make a 4x5.3-inch print instead of a 4x6," wrote an Amazon rep. So when the photo is "centered and enlarged to fit the 4x6 format, any portion that doesn't fit on the page is cropped." Including, alas, these people's heads.

Better

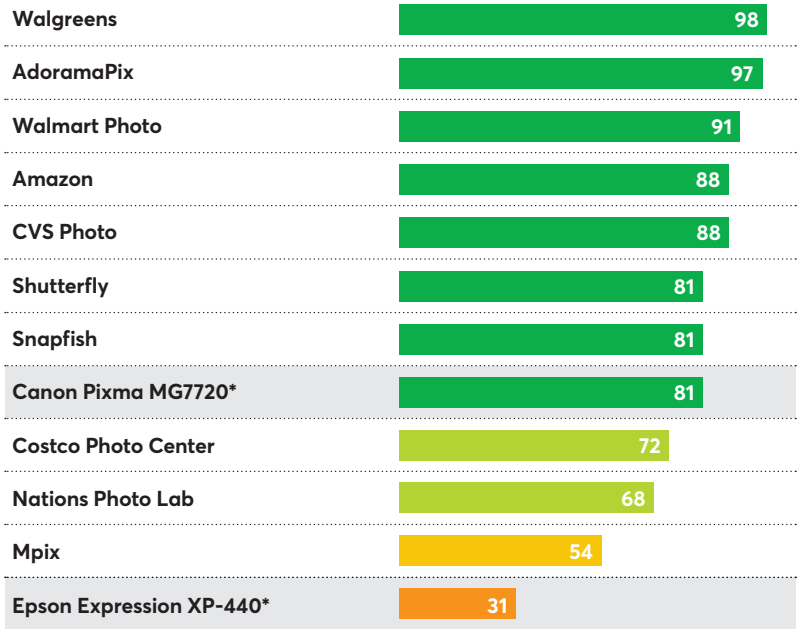
Walmart's autocropping was more sensitive to the subject matter, but it still gave this chap an uncalled-for hair trim.

Best

This print from Nations Photo Lab rendered the most satisfying composition of the three, mostly by doing no harm to a photo that was well-composed to start with.

Photo Finish

After testing the photo print quality of 10 top services, plus two of our top-scoring home printers, we applied numerical ratings to each. According to our in-house printing expert Rich Sulin, "there were clear differences." The prints from Walgreens, AdoramaPix, Walmart, Amazon, CVS, Shutterfly, and Snapfish were rated Excellent. Those from Costco and Nations Photo Lab were Very Good. And those from Mpix were Good. Our testing panel found the Mpix prints to be slightly undersaturated, not very crisp, and a bit grainy. In an emailed statement, Mpix expressed surprise. "We often rank highly in similar tests. We tightly and regularly calibrate our equipment, and our team closely monitors every order all the way through the lab."



HOW WE TEST: The overall print quality score is a combination of clarity, contrast, and color accuracy of our reference image (not shown) reproduced by each service, as evaluated by our trained panel.

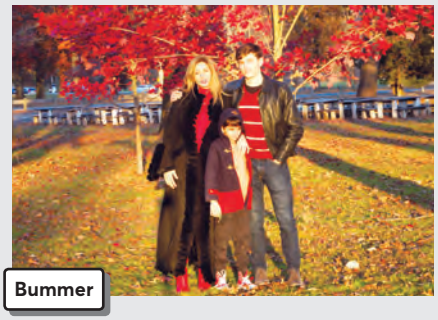
*All-in-one inkjet printers from our labs.

PHOTO, PREVIOUS SPREAD: JENNIFER FROST. THIS SPREAD, FROM LEFT: JANICE SMITH; MARIELA MURDOCCO

POOR EXCELLENT

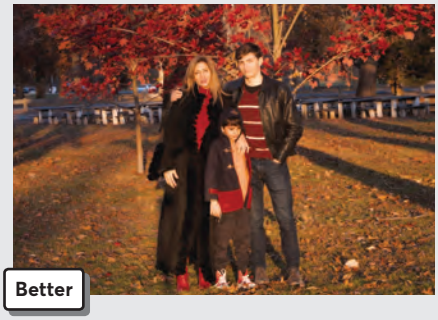
Lighten the Load

For those who don't want to retouch photos themselves, the services offer a variety of color and image correction options to try to improve sub-optimal photos. To see how this worked, we chose the photo shown here—a challenge because it contains both bright autumnal colors as well as subtle skin tones. We selected the autocorrect option provided by each vendor, allowing the service to evaluate and adjust the brightness, saturation, and contrast in any given print. For a fee, you may be able to request a range of other retouching options. Mpix, for example, offers red-eye reduction, facial retouching, glass glare removal, stray hair removal, and teeth whitening.



Bummer

This print from **Costco** showcased the leaves but left the faces totally washed out.



Better

Nations Photo Lab did a much better job with the facial skin tones, but in the process it sacrificed the brilliance of the leaves.

Best

AdoramaPix's print gets this tricky exposure challenge just right, striking a balance between skin tones and foliage.

Our Guide to 10 Print Services

It turns out that you don't have to pay top dollar to get top quality. Three of the least expensive services for per-print price—Walmart, Amazon, and Snapfish (all $0.09 per 4x6 photo)—received high marks from our testers for photo print quality. Mpix, our lowest scorer, charges $0.29 per photo in the popular 4x6-inch print size.

GUIDE TO THE CHART: All photos we tested were delivered by mail from a lab. The **4x6** and **8x10 prices** were current as we went to press. There may be additional charges for retouching and color correction. **In-store pickup** indicates services available nationwide. **Cloud storage** designates services that offer to store all of your photos, not just those used in photo books and collages.

Service	Score								Comments
	Print quality	4x6 price ($)	8x10 price ($)	In-store pickup	Mobile app	Print sizes	Framing	Cloud storage	
Walgreens	98	0.33	3.99	●	●	6		●	Provides same-day pickup. With the app, you can arrange pickup times at nearby locations.
AdoramaPix	97	0.29	1.89		●	28	●		Offers free economy shipping on orders of $49 and more.
Walmart Photo	91	0.09	1.79	●	●	8	●	●	Offers 1-hour pickup at extra cost.
Amazon	88	0.09	1.79		●	7		●	Provides free shipping with $99/year Amazon Prime membership.
CVS Photo	88	0.29	3.99	●	●	7	●	●	Offers same-day pickup.
Shutterfly	81	0.15	3.99	●	●	13	●	●	Provides 1-hour pickup or free shipping on orders of $39 and more.
Snapfish	81	0.09	2.99	●	●	11	●	●	Offers in-store pickup at CVS, Walgreens, and Walmart.
Costco Photo Center	72	0.17	1.79	●	●	11		●	Requires a $60-a-year store membership.
Nations Photo Lab	68	0.28	1.95			70	●		Provides free shipping for orders of $49 and more.
Mpix	54	0.29	2.29		●	29	●		Offers free shipping with rewards points.

Save Money and Still Get a Print You Love

Before you place your order, here are a few tips to help you get the photo you really want.

Start strong. To get a great print, start with a good photo. No printer in the world can magically rescue a low-quality image. If you see imperfections in the photo on your smartphone screen (say, focus and lighting problems), they will only be magnified on a 5x7-inch print—and even more so on an 8x10. Photos with Instagram filters often get resized, losing integrity before you upload them. If your image requires retouching, you're better off using the editing options provided by the vendor.

Shave off shipping. Shipping costs can add significantly to the total price of your order—from $1 to more than $10 for orders that are large or specialized—so it makes sense to seek out the best deals. Amazon, for example, offers free shipping to Prime members. An even better way is to eliminate the shipping altogether. Many services offer in-store pickup, depending on the print size. Snapfish orders of standard prints can be retrieved at a CVS, Walgreens, or Walmart store. Shutterfly makes 4x6-inch glossy prints available at CVS, Target, and Walgreens. Costco also offers free in-store pickup and free standard shipping, but once again only for those 4x6 prints.

Count on coupons. Keep in mind that online vendors routinely offer coupons for free shipping, as well as discounts on prints and bonuses such as photo books. Without them, you're probably looking at significant delivery fees added to the bottom line.

Act on the app. Remember to check out the app for each service for special deals. For example, Shutterfly offered unlimited photo storage and all the 4x4 and 4x6 prints you want free of charge. At Snapfish, the enticement was 100 free 4x6 prints per month for a year, although shipping was not included. In addition, many of the apps can import photos directly from Facebook and Instagram. And CVS and Walgreens promise same-day pickup at a store near you.

Don't settle. Not happy? Speak up. Amazon's print service gives you up to 30 days after an order arrives to contact them; Walmart makes it 90. If you're dissatisfied with your prints "for any reason," claims Walgreens, "we will provide you with a full replacement or a full refund." Shutterfly promises a free replacement for prints with flaws attributed to its service. For mistakes on your part—say, requesting prints of a low-resolution image—the company will share the cost of replacement.

The Perils of DIY Printing

When home printers first improved enough to produce quality photos, some consumers thought they'd be free of these services entirely and even save some money in the process. But we discovered that professional services are not only easier than printing at home but also less expensive once you factor in those largely hidden paper and ink costs.

According to CR's Rich Sulin, drawing on data from more than 180 printers tested in our labs over the last two years, a 4x6 photo print produced by a home printer costs, on average, about 45 cents.

That's significantly more costly than our most expensive off-site printers and five times as expensive as the cheapest.

The photos we printed on our benchmark $200 Canon Pixma MG7720 were rated Excellent by our testers, but each 4x6 will set you back about 65 cents. We found that our $100 Epson Expression XP-440 will spit out prints for about 50 cents each, but the quality is just Fair, significantly worse than anything produced by an off-site printer.

"Sending photos out to be printed is the best alternative for most photographers," says Sulin. "It's cheaper and can yield better results."

CANON PIXMA MG7720 $200 — **59** OVERALL SCORE

EPSON EXPRESSION XP-440 $100 — **55** OVERALL SCORE

How to Use the Websites Well

For the most part, the websites we examined were simple to navigate, allowing the user to order prints in a variety of sizes with relative ease.

For those who want a little hand-holding, Nations Photo Lab numbers each step in the ordering process, and AdoramaPix uses pop-up windows to guide you through the decision-making. The latter also provides customers with an "express order mode" that recalls details from prior orders to help speed you along.

With Shutterfly, there's no wading into the process. You must be ready to make decisions about photo size, finish, and the number of prints right off the bat.

At Amazon, the trick is finding the right link. Spare yourself a headache by just doing a Google search for "Amazon prints."

And here's one last point worth considering: Most of these services require you to repeat steps for prints with different finishes: matte, glossy, or lustre. Snapfish even sends you in different directions to pick up the prints (a CVS or Walgreens for glossy and a Walmart for matte). Mpix requires repeated steps for prints of different sizes, too.

AdoramaPix and Shutterfly allow you to request multiple finishes with more ease, though you may have to upload a photo to Shutterfly twice and assign it different names to have it printed in both matte and glossy.

We also learned that prints from Amazon, CVS, and Walgreens all shipped from the same Maryland address—the one belonging to District Photo, the company that owns Snapfish. This may explain why the retail interfaces on the CVS, Snapfish, and Walgreens websites are strikingly similar.

I just saw coffee flour at the grocery store. What is it, and will it give me a caffeine buzz?

Coffee beans are nestled inside a fruit called a coffee cherry. After harvest, the edible fruit is often discarded, but some companies are now drying the cherry and grinding it into a soft "flour," explains Maxine Siegel, R.D., who heads CR's food lab.

One perk of coffee flour is its sustainability. It takes 100 pounds of coffee cherries to make 20 pounds of coffee beans, according to the National Coffee Association; that's a lot of fruit that would be thrown away. It's nutritious, too: 1 tablespoon has 5 to 6 grams of fiber (about five times more than whole-wheat flour), plus potassium and antioxidants.

But don't expect it to turn cookies into health food, says Siegel, because coffee flour can replace only up to 25 percent of the flour in baked goods.

We made two batches of blueberry muffins and brownies in the CR test kitchen, one using the regular recipe and the other swapping 20 percent coffee flour for wheat flour. Then our taste experts did a blind taste test. "The coffee flour muffin had a notably bitter taste," says Siegel. "But we hardly noticed a difference in the brownies."

For a quick health boost, try a tablespoon of coffee flour in a smoothie. You'll get a caffeine boost, too: 1 tablespoon has about 70 mg—the same as in 6 ounces of black coffee.

LEARN

We have more than 140 in-house experts who research, test, and compare! Submit your questions at **CR.org/askourexperts** ... and watch for the answers.

If someone collapses and I don't know CPR, what can I do after dialing 911?

"Often people hesitate to do CPR because they haven't had training," says Orly Avitzur, M.D., medical director for CR. But the willingness of bystanders to perform CPR can double or triple a cardiac arrest victim's chance of survival.

Anyone untrained can use an effective technique called "hands-only CPR," using chest compressions without mouth-to-mouth resuscitation. Place the heel of your hand on the center of the person's chest, on the breastbone, with your other hand on top. Then push down, hard and fast—the chest should go down at least 2 inches, then rise fully. Keep a pace of 100 compressions per minute. Humming the Bee Gees' "Stayin' Alive" keeps the right rhythm. (For more guidance, go to CR.org/cpr1217.)

Thanks to Good Samaritan laws in every state, you are unlikely to be held liable in the event of a civil suit, as long as you acted in good faith.

I see that generic tablet chargers often cost less than ones sold by the manufacturer. But do they work?

"Some cheaper third-party chargers can not only hurt your electronics—they can hurt you," says Maria Rerecich, director of electronics product testing at CR. While the chargers for your phone, tablet, and laptop may seem simple—just a cord and a power adapter brick that plugs into the wall—they're anything but.

That brick is packed full with circuitry designed to convert the alternating current (AC) from the wall outlet into the direct current (DC) needed to safely charge the lithium-ion battery in your device. This demanding role is why chargers can feel warm during daily use.

Chargers that come from the manufacturer are designed for your tablet, and they also have quality components that go through rigorous testing by UL (Underwriters Laboratories), a global independent safety science company. Because the UL standards are voluntary, many third-party chargers without the UL mark use inferior components that don't meet these standards. And others apply counterfeit marks—go to UL.com/marks to verify yours.

According to Paul Brown, vice president of intellectual property and litigation at UL, these chargers can start a fire; they've sparked during tests. In extreme cases they are also an electrocution hazard: In 2014, a woman in Australia allegedly died by electrocution while on a phone plugged into an uncertified adapter, according to a UL report.

Though not all generic chargers are dangerous, it's worth buying a manufacturer's charger or one recommended by the manufacturer with a UL seal. "Think of the extra money you spend on a quality charger from a reputable source as an insurance for you, your family, and devices," Rerecich says.

ILLUSTRATIONS BY SERGE BLOCH

Shop Online With Confidence

A growing number of people have discovered that holiday shopping online beats driving in circles looking for mall parking spaces and fighting through crowded stores. You can polish off your holiday shopping list from the comfort of your couch, and your gifts can be delivered—even wrapped—with a few clicks. All you have to do is hand them out to grateful recipients.

But not every part of the experience is easy. To be a savvy online shopper, you need to know how to get the best deals, protect your privacy, and shield yourself from scammers. Follow the advice on the following pages and you'll save money, cut hassles, stay safe, and have a less stressful—and happier—holiday overall.

5
BUY

The Art of the Online Discount

Use tools for digital deals

1. Get the lowest current price. InvisibleHand is a browser extension (download it from its website) that tracks prices at 11,000 online stores and sends you a pop-up notification so that you can see whether an item you're viewing is cheaper elsewhere. It works in the background of your browser (it's compatible with Chrome, Firefox, and Safari, and does not collect any personally identifiable information about you). Click on the pop-up, and you'll be directed to the product page of the competing website.

2. Automate the coupon search. Forget about Googling coupon codes. The browser extension Honey finds and automatically enters them for you at checkout when you're shopping at one of thousands of participating stores. At checkout, you'll see a pop-up box asking whether you'd like to try all available codes. Click "yes" and Honey will run through them in a matter of seconds. The app collects data necessary to save you money but doesn't sell it.

3. Give yourself a gift (card). Buy gift cards below face value at sites like Raise or CardCash and use them to purchase gifts for others. The sites list cards, either unused or with remaining funds, from consumers that can be purchased at a discount. The discounts vary. In December, gift cards for Best Buy can average 3 percent off and 20 percent off for Ann Taylor.

4. Get rewards for shopping. Use a shopping portal like Shopkick or Ebates to earn rewards (on top of loyalty rewards and credit card points). Create an account on one of the sites, then click through to participating retailers (rather than going directly to their home page) to earn rewards for purchases made on those sites.

5. Get friendly over IM. If you're shopping at a retailer that has an online instant chat service, use it to ask for a lower price. Say something about how much you like the product but that it's just a little pricey for you. Ask whether there are any promotions or discounts that might make it more affordable.

6. Play hard to get. Abandon a full shopping cart on a retail website, and you may get an email the next day offering you a discount to complete the purchase. Kate Spade, as one example, recently offered a shopper 15 percent off an order she had left in a cart overnight.

7. Be a follower. Follow your favorite retailers on Facebook, Twitter, and other social networks, and sign up for their email and text alerts about flash deals and exclusive discounts. Nordstrom, for example, was recently promoting its Anniversary Sale via Facebook, and Lord & Taylor frequently sends discount codes via text to consumers who opt in to them. Yes, this means those platforms–and their marketing partners–may be better able to target you with promotions. Want to reduce this kind of online tracking? See "How to Shop Undercover," on page 27.

8. Download the app. Some retailers have additional deals only for mobile customers. Turn on the app's notifications to get them. The Kohl's app, for example, offers notifications of discounts and allows users to track and redeem their rewards.

9. Pretend you're a newbie. Log in with a secondary email address, which might fool a site into thinking you're a first-time visitor. This may entitle you to discounts offered only to new customers.

10. Follow the leaks. Some of the largest retailers strategically share their Black Friday circulars to places like BFAds.net, which posts them for consumers. And we also break news about Black Friday deals on our website, at CR.org. If you see early word of a sale on something you plan to buy, up the odds you'll get it before it sells out by putting the item in your cart on the retailer's site before the big sale day—and setting a reminder to finish the purchase once the sale starts.

Skip shipping costs

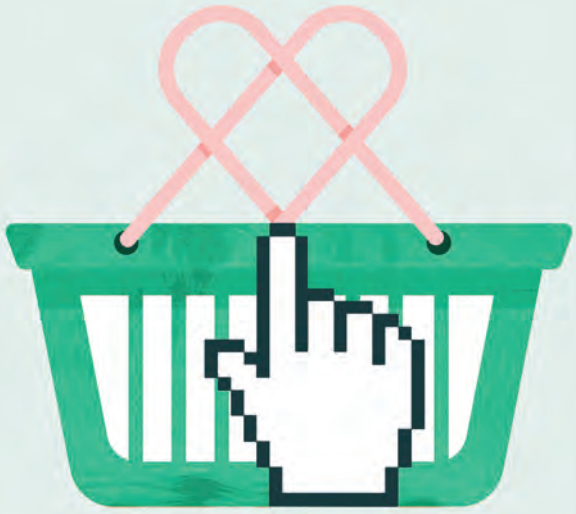
11. Free Amazon Prime. If you're not already a member of Amazon Prime, you can sign up for a 30-day free trial just for the holiday season to get free two-day shipping. But Amazon will automatically charge you for the service at the end of the trial period, so remember to cancel if you don't plan to keep the membership.

12. Free Shipping Day. On Dec. 15, more than a thousand retailers are expected to offer shipping deals with no minimum order threshold. Go to freeshippingday.com to get codes to enter at checkout. A roster of this year's lineup of participants is available on the website; last year's included Barnes & Noble, JCPenney, and Toys "R" Us.

13. Pick up in-store. If your online retailer has a walk-in counterpart that's convenient to you, driving to the store is a great, no-cost option if you've missed the cutoff date for free shipping.

14. Bunch your purchases. Many websites have a minimum purchase amount that you must get to qualify for free shipping. "See if you can buy multiple gifts on one site that will add up to the minimum," says Michelle Hutchison, global head of communications and money expert for finder.com. You'll have to send the purchases to yourself because many retailers don't allow you to ship to multiple addresses.

15. Ask for it. A phone call to customer service or a request over instant chat may yield a discount or free shipping code. *—Beth Braverman*



Shopping for a Worthy Cause

Can you trust retailers when they say they donate a part of the proceeds to charity?

Some retailers say they contribute a portion of every sale to charity. Called "cause marketing," this practice can be profitable if it brings business from shoppers who might otherwise spend elsewhere. But for a consumer, it can be hard to know whether the retailer is contributing to a charity as generously as it wants you to think it is.

Before buying from a retailer that says it donates to charity, look on its website for information about its giving policy. While there's no "right" amount to give, be dubious (and consider shopping elsewhere) if the retailer says it donates "a portion" of the proceeds without naming a figure.

But even if the retailer's donation policy satisfies you, don't give it your business just because part of the sale supports a good cause. "The service, price, convenience, and quality should be equal to what you get elsewhere," says Daniel Borochoff, president of the charity watchdog group CharityWatch.

Consider AmazonSmile. The website promises the same prices, products, and service as its sister retailer Amazon.com, except that it donates 0.5 percent of eligible products you buy to the participating charity of your choice. But Amazon isn't always the lowest-priced retailer.

For example, though the same Samsung Blu-ray player was $228 at both AmazonSmile and Walmart.com recently, Walmart was throwing in a $50 Walmart gift card. It probably doesn't make much sense to pay $50 more at AmazonSmile to make a $1.14 charitable contribution. You could have a bigger impact by making a small charitable donation on your own. And Walmart's return policy is 90 days, three times longer than Amazon's.

—Anthony Giorgianni

Play the Dynamic Pricing Game to Win

Online prices on products and holiday airfares can fluctuate daily, even hourly. You can make that work to your advantage.

If you've ever left an item in an Amazon shopping cart for a few days, you might have seen an alert when you returned to your cart showing a price drop—or increase. That's dynamic pricing at work. Many online retailers shift their prices as they monitor competitors' pricing and customers' demand. Some even use what they know about your shopping habits and location to set the prices they show you.

"This way of doing business isn't typically illegal," says Norman Silber, a consumer law professor at Hofstra University in Hempstead, N.Y., and one of CR's former board members. The exception, he says, is pricing intended to stifle competition, or that considers prohibited factors like gender or race.

Dynamic pricing lets retailers exploit differences among consumers, notes Z. John Zhang, a professor of marketing at the University of Pennsylvania's Wharton School. "It's almost a game that retailers play," he says.

But it's a game you can play, too.

Let items sit in your shopping cart. If you're not in a rush, log in and put that digital camera into your shopping cart. Revisit the cart a few days later. You may see a lower price. Be aware, though, that prices may also rise.

Use a different ZIP code. A Wall Street Journal report found that some online retailers charged differently based on ZIP code. Home Depot, one of the retailers studied, told us it sets its online pricing based on the price at the brick-and-mortar store closest to the consumer. (Stores prices can differ by location.) Input a friend's or relative's ZIP code, or enlist someone in another ZIP code to shop for you. Make sure any extra shipping cost and inconvenience don't undermine what you save.

Use price alerts. You can set up notifications about Amazon price changes using tools such as camelcamelcamel and Honey. Travel websites such as Expedia, Kayak, and Travelocity offer alerts for price changes on specific itineraries or hotel stays.

Shop for holiday airfares with and without your cookies enabled. On sites such as Hotwire, Kayak, and Google Flights, search multiple times over several days, both with and without clearing your history or "cookies"—the data files that record previous web searches. (Go to the "history" or "privacy" section of your browser and look for "clear cache," "clear cookies," or "clear browsing data.") When CR testers tried this for identical flights on nine different sites in 2016, the prices we got differed by as much as $238.

–Tobie Stanger

Why Do I Have to Put an Item in My Cart to See the Price?

When shopping online, you may have noticed that sometimes one critical piece of information is missing from the otherwise detailed product descriptions—the price. You have to put the item in your cart for the big reveal. Why the suspense?

This practice is not necessarily a tactic to trick you, but rather an indication that the retailer is charging less than the minimum price some manufacturers impose on their merchandise, says Eric Goldman, a professor at California's Santa Clara University School of Law and a specialist in internet law. Retailers that advertise prices below the minimums risk manufacturers' ire—and the possibility that the manufacturer might cut off their supply. But a retailer that doesn't actually advertise the price—for example, by making you go fetch it—may not be violating the manufacturer's minimum price policy, or may be hoping the manufacturer either won't notice or will look the other way.

—Anthony Giorgianni

Black Friday vs. Cyber Monday

When do you get a better deal?

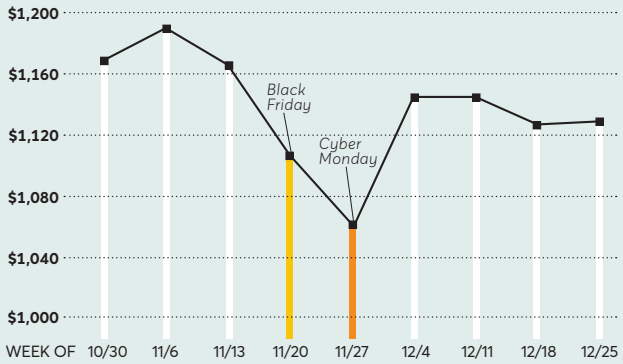
The answer: It depends on what you're buying. We chose four high-on-the-wish-list holiday gifts—televisions, laptop computers, fitness trackers, and smartwatches—and looked to see which of the two promotional sale days offered the best deals in 2016. Consumer Reports partnered with Gap Intelligence, a market research company that specializes in retail pricing data, to analyze price fluctuations during the 2016 holiday period. Prices are averages for all models within each product category.

Though laptops were cheaper last year on Black Friday (the day after Thanksgiving), the other products were priced lowest on Cyber Monday (the Monday after Thanksgiving). Truthfully, sometimes the price differences were puny. Compared with the rest of the year, though, the savings were more significant. Also worth knowing: Prices were comparable when we compared 2016 online vs. in-store prices on those sale days and year-round.
—Nikhil Hutheesing

TVs

BEST TIME TO BUY
Cyber Monday

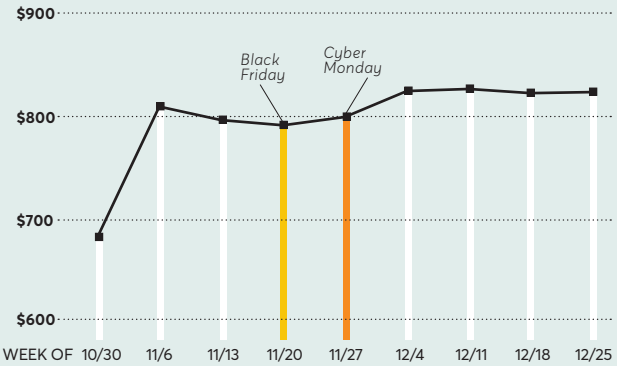
The average price on Cyber Monday was $329 lower than the peak price in 2016 and $45 lower than for Black Friday.



Laptops

BEST TIME TO BUY
Black Friday

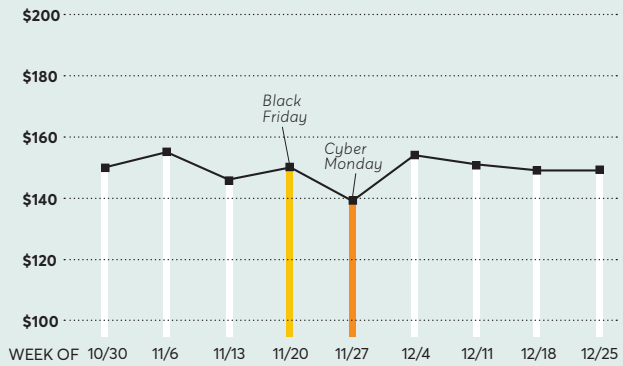
The average price on Black Friday was $35 lower than the peak price in 2016 and $8 lower than for Cyber Monday.



Fitness Trackers

BEST TIME TO BUY
Cyber Monday

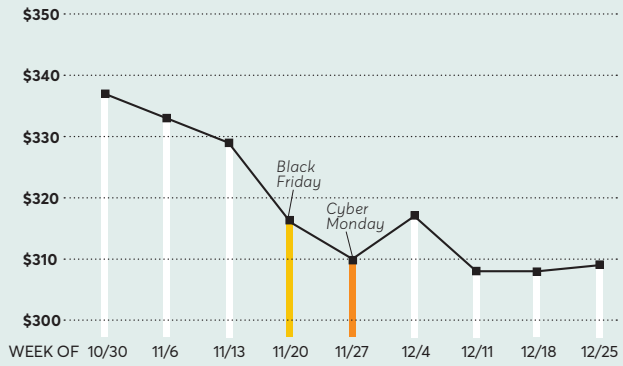
The average price on Cyber Monday was $31 lower than the peak price in 2016 and $11 lower than for Black Friday.



Smartwatches

BEST TIME TO BUY
Cyber Monday

The average price on Cyber Monday was $29 lower than the peak price in 2016 and $6 lower than for Black Friday.



Return Policies You'll Love—and Hate

Not as fond of that cashmere reindeer sweater as the person who gave it to you had hoped? The best remedy for a bad gift is a good return policy.

Some retailers take merchandise back with no time limit, putting to shame the run-of-the-mill 30-day return period you get from such retailers as Amazon or even the 90-day window provided by Walmart. But other retailers' policies are downright dismal, giving you or your giftee hardly any time to send back unwanted items and, in some cases, charging hefty restocking fees.

Here are three of the best and worst return policies out there. Keep in mind that some retailers extend or otherwise improve their return policies during the holidays. Check a retailer's rules carefully.

The Best

LANDS' END The retailer's website says it all. "Guaranteed. Period. If you're not satisfied with any item, simply return it to us at any time for an exchange or refund of the purchase price." Proof of purchase is not required.

L.L.BEAN This is another retailer with no set limit on returns for refund or exchange. "If something's not working or fitting or standing up to its task or lasting as long as you think it should, we'll take it back," its policy says. Receipts are not required.

NORDSTROM This store has no formal return policy. Instead, it says that each return will be handled on a case-by-case basis "with the ultimate objective of making our customers happy."

The Worst

BEST BUY The return policy for this huge electronics retailer says it wants to deliver the "convenience you deserve." But convenience probably won't be the first word you think of when you see its 15-day window for returning most items. The store requires proof of purchase and has a 15 percent restocking fee on certain items, including drones and some digital cameras and lenses.

APPLE STORE Though some of its products may be in big demand, the Apple Store gives you just 14 days to decide whether you're completely happy with your purchase.

NEWEGG This online seller of electronics and other products refunds 100 percent of non-defective items returned within 30 days, but only if they're defective or unopened. Opened items qualify for just 85 percent of the purchase price. For opened notebooks and desktop PCs, tablets, and TVs, that goes down to 75 percent.

—Anthony Giorgianni

LEARN

Read more about how to get a great Black Friday deal and other ways to save at CR.org/holidays.

Staying Safe From Online Threats

Nothing can ruin your holidays more quickly than being a victim of cybercrime. So before you fire up your laptop to go shopping, here are a few ways to stay safe from online threats.

Update everything. The best way to inoculate any device you shop with is to make sure it is running up-to-date software. And that means everything from the operating system to the apps you use to shop or bank with. When software providers find out about bugs, they send out patches to fix them. But hackers are constantly on the lookout for old, unpatched systems.

Strengthen any weak passwords. Especially on shopping, email, and banking accounts.

"Usernames and passwords are often the only security measures used to prevent your account from being compromised," says Robert Block, senior vice president of identity strategy at SecureAuth, a security company.

Long strings of random letters, numbers, and symbols are best, Block says. And never use the same password for more than one account.

Install antivirus software ... if you haven't already done so. Windows 10 has good security built in, but you can boost your protection by adding a product such as Avira Free Antivirus 2017, CR's top-rated free package, which works with both Macs and PCs.

Enable multifactor authentication on accounts that offer it. Do that, and you'll need two pieces of information to log into the account from a new laptop or phone. The first is your password. The second item is typically a one-time code sent to your smartphone. This will keep hackers out of your accounts, even if they have stolen your password. Note: Multifactor goes by a variety of names. For instance, it's 2-Step Verification for Google and "two-factor authentication" for Facebook.

Michael Kaiser, executive director of the National Cyber Security Alliance, says multifactor and measures such as fingerprint sensors are a big help: "Usernames and passwords are not enough to protect key accounts like email, banking, and social media."

Stay off public WiFi for shopping. If the free internet at your favorite coffee shop doesn't require a password, anybody can get on—and that includes hackers. Your best bet? Save your online shopping for home—and never use public WiFi to check your bank balances or credit card transactions. Can't resist Starbucks? Get a virtual private network, or VPN. This service will create a secure connection between you and the sites you visit.

–Bree Fowler

The Bots That Stole Christmas

Here's why those hot holiday toys disappear instantly online.

If you were shopping online last Christmas, you may have had a hard time snagging a Hatchimal, one of the year's hot toys. Getting Nintendo's NES Classic gaming console wasn't easy, either, unless you paid a steep markup.

Lots of people were trying to buy these items, but that wasn't the only thing driving demand. Human shoppers were also competing against an army of bots.

Bots, short for software robots, are applications that run automated tasks over the internet. Bots have legitimate uses. But for years, scalpers have been using them to gobble up online ticket sales within seconds. And the same shady techniques are used to buy and sell toys, gaming equipment, and the high-end collectible sneakers in Adidas' Yeezy line.

"They're using very sophisticated tools," says Omri Iluz, co-founder and CEO of PerimeterX, a Silicon Valley-based startup that designs anti-bot technology.

And the problem isn't isolated to holiday time. Joseph Smith of Chesapeake, Va., went online to buy Nintendo's new SNES Classic Edition right after the console went on sale this past August. Like other consumers, he tried Walmart, Target, and GameStop without luck.

"Walmart was like a 40-second blur of availability," Smith said via email. "As I added the preorder to my cart and went to log in, the site was bogged down. I hit refresh and it was gone—just that quick." He eventually snagged a preorder from Walmart. But some of the $80 consoles were being offered on eBay for $200 and up.

Congress tried to rein in ticket scalping by passing the Better Online Ticket Sales Act of 2016, but the law applies only to event tickets.

Some manufacturers are trying to address the issue. For instance, Adidas launched an app, called Confirmed, that lets shoppers reserve sneakers online and pick them up in person.

If you're shopping for a hot item this holiday season, first find out the suggested retail price to avoid being gouged by a scalper, suggests Laurie Schacht, chief toy officer of The Toy Insider.

Then try to shop early. Demand for hot toys builds as Christmas approaches, attracting more bots. So resist the urge to procrastinate, Schacht says, and "you are much more likely to pay a fair price and avoid lots of headaches."

—Bree Fowler

How to Shop Undercover

Expert tips to help you keep your purchases private

It seems like everyone wants to know what gifts you're buying. If your loved ones aren't snooping around, marketers who wish to pepper you with ads are. And a poorly timed pop-up ad can spoil the surprise. Here's how to keep the secret in Secret Santa.

The Marketers

When you shop online, some browsing info is bound to wind up in marketing databases, but you can try to limit your exposure. "Volunteer as little info as possible," says Justin Brookman, CR's director of consumer privacy.

Check out from retail websites as a guest, think twice before signing up for loyalty programs, and, he adds, install a free ad blocker such as uBlock or Privacy Badger on your browser.

Want to avoid spam? "Create a burner email" used only for holiday shopping, says Casey Oppenheim, co-founder of the digital security firm Disconnect.

Your Spouse and Kids

To keep your purchases secret from family, surf the web in private browsing mode. It prevents others in the household from seeing which sites you've visited. Just realize that's all it will do. "Most people think that when you're in private browsing mode, you're not being tracked by marketers," Oppenheim says. "That's absolutely not true."

And Amazon's Household program lets adults share a Prime account while having separate shopping carts and order histories. Want to hide how much you spent on your spouse? Add a new credit card to the account. *—Allen St. John*

Avoid These Holiday Scams

At this busy time of year, you need to be especially vigilant to avoid bogus websites, fake emails, or phone calls that fraudsters set up to take advantage of you or otherwise steal your holiday cheer. Here are three scams you may encounter during the holidays and common-sense ways to keep your guard up.

THE SCAM

Shipping Confirmation Ploy

You get an email or phone call from someone claiming to be from the U.S. Postal Service or a major shipping company. You're told that you have a package waiting for delivery or that someone else received a package that was intended for you. In order to make sure you are the correct recipient, you're asked to submit personal information, including your name, address, date of birth, and Social Security number.

THE FIX The U.S. Postal Service says it does not call or email people requesting such information. If there's a problem with a postal delivery or a need to verify, a USPS carrier will attempt to visit a location in person. Crooks ask for personal data because they can use it—along with other data out there that's been collected about you—to apply for credit in your name. If a request for personal information comes in over the phone, don't be swayed to respond even if your caller ID displays a number that looks like it originates from the USPS, warns the U.S. Postal Inspection Service. If it comes in via email, don't click on any links or open any attachments—they could cause malware to automatically be installed on your computer that could steal additional personal information.

If you believe there's a package waiting for you, use the shipper's online tracker, which requires an order or reference number, to try to find out where it is. Or search for a phone number or email address to contact the shipper directly.

THE SCAM

Fake Retail Site

You come across the item you want at a super-low price being sold at a website you never heard of. To make the purchase, you need to input your credit card number.

THE FIX Don't buy until you've researched the site, advises Katherine Hutt, spokeswoman for the Better Business Bureau. You may be giving your card number to a scammer, who could use it to make other purchases or sell it to other scammers. Or you may be shopping one of many websites, often overseas, that sell counterfeit merchandise, Hutt says. These include bogus sporting goods, fake Gucci handbags, and phony Rolex watches, often at ridiculously low prices.

You should always be suspicious of prices that are unusually low and of online retailers that don't provide an address and telephone number.

Protect yourself by looking up the seller at the Better Business Bureau (bbb.org). Also do a web search of the company's name and such terms as "reviews" and "complaints" to see what others have to say.

If you see unauthorized charges on your credit or debit card, contact your card issuer immediately to have them removed and to obtain a new card number.

THE SCAM

Classified Ad Come-On

You find the perfect gift, but it's not being sold in a store. Instead, it's listed in a classified ad on a site such as Craigslist or Backpage. To buy it, the vendor says you should make a wire transfer, use an online escrow service, or pay through Venmo. But after you place your order, the item never arrives. Your emails to the seller go unanswered.

THE FIX Don't send money to people you don't know. The person who placed the classified ad could be a scammer, perhaps located overseas beyond the easy reach of U.S. authorities, warns the Minnesota attorney general.

If you want to make a purchase based on a classified ad, Craigslist suggests that you deal only with local sellers whom you can meet in person. It's probably also a good idea to meet in a public place, and you could check with your local police department to see whether your town has set up a monitored safe zone where people can complete such transactions, advises the Minnesota attorney general.

—Anthony Giorgianni

Shopping Tips for Procrastinators

Get-it-there-fast solutions for late birds

If you're the kind of holiday shopper who scrambles to buy all of your gifts just days before the holidays, your biggest concern is likely to be how to get your purchases delivered on time—without busting your budget.

A survey of holiday shopping preferences by the National Retail Federation reports that free shipping is the single biggest factor that will nudge an online shopper to make a purchase. The good news is that free delivery is widely available, but you'll need to meet shipping deadlines to qualify.

And this year's calendar could add a wrinkle to your holiday shipping plans, because Christmas falls on Monday. Though the U.S. Postal Service does plan to deliver on Sunday, Dec. 24, United Parcel Service doesn't plan to make noncritical deliveries that day. FedEx says it will provide very limited service.

Here are some tips to help holiday-shopping procrastinators.

Choose retailers that offer year-round free shipping, including Blue Nile, L.L.Bean, and Nordstrom. Check their websites for holiday shipping deadlines. Last year, L.L.Bean required orders to be placed by Dec. 21 and Nordstrom's deadline was noon Eastern time on Dec. 23 to ensure free delivery in time for the holidays.

Hit the two-day free delivery window. Up until the end of the day on Dec. 21, you can get free two-day shipping at some major retailers for packages going to addresses in the U.S. Walmart offers free two-day shipping year-round on orders over $35. Amazon Prime members are also eligible for free two-day shipping for Prime-eligible products. You can also get a free 30-day trial to ShopRunner (regular annual fee: $79 or $8.95 a month), a service that provides free two-day delivery (and returns) from more than 100 retailers, including Bergdorf Goodman, eBags, and Kay Jewelers. If you have an American Express or MasterCard credit card, you may be eligible for a free ShopRunner membership.

Try to get one-day or same-day delivery. If you leave your shopping until after Dec. 21, Amazon Prime members who place an order of at least $35 may be eligible for free one-day or same-day delivery if their purchase is headed to one or more than 5,000 cities or towns. (Enter "Amazon Prime free one-day shipping" into your web browser to search for eligible ZIP codes.)

Order online and pick up at the store. A number of retailers, including Apple, Best Buy, and Walmart, have provided this service in the past. Last year, orders placed by 6 p.m. local time on Dec. 23 at Walmart.com could be picked up through closing time on Dec. 24 at thousands of its stores.

Give an e-gift card. While downing some eggnog on Christmas Eve, you still have time to send an e-gift card that includes an email to the recipient alerting her to your gift. If a general e-gift card is too impersonal, consider giving a card that is more tailored to your recipient's interest, such as a Blue Apron gift card for time-stressed cooks, a Home Depot or Bed Bath & Beyond gift card for the millennial in your life who just moved out, or a gift certificate to Jackson & Perkins for those with green thumbs. *—Carla Fried*

Shattered

Consumer complaints about exploding sunroofs have spiked in recent years as they've grown in size and become more prevalent. What consumers need to know to stay safe on the road and protect themselves from large repair bills.

by Jeff Plungis and Thomas Germain

Danger Overhead
Tempered glass, the kind typically used in sunroofs, can fail explosively—usually a loud bang followed by a shower of glass.

WHEN IT HAPPENED, Heather Savage had two of her five children with her in their 2016 Nissan Pathfinder. Four-year-old Eli was strapped into a car seat in the second row, and Raquel, 15, whom they'd just picked up from ballet class, was in the front passenger seat. They were on their regular route home, in Cache Valley, Utah, going about 40 mph, when Savage heard a loud, powerful explosion. "My heart was racing," she says. "It's not something you expect to happen when you're driving."

She suspected a tire had blown, but the SUV wasn't wobbly. When she could, she pulled over and got out to look around, at first thinking, "Hmm, my tires are fine." Then she looked up and saw that the sunroof had exploded, dropping hundreds of bits of glass onto the sunroof's shade guard, above her children's heads.

"I feel really lucky that I had that shut at the time," says Savage. "When I was looking at cars, I loved the sunroof, but I never imagined in a million years that would happen."

An exploding sunroof might sound like a freak occurrence, but a Consumer Reports investigation has found that it's not. These incidents have happened in every month of the year in every part of the country, in vehicles from all over the world; they have occurred on interstates, on country roads, and even while parked in driveways.

Sunroofs have significantly expanded in size in recent years, and they've also grown in popularity. And the number of consumer complaints about them shattering without warning have soared. (See chart on page 36.)

While this doesn't happen nearly as often as, say, a tire blowout on the highway, any explosion while driving can present a real safety hazard.

And although the issue is well known to the auto industry and government safety regulators, drivers generally assume that their sunroofs are safe.

Our investigation has found that, with a few exceptions, automakers are not acknowledging or resolving the issue. It's also clear that the safety standards and regulatory oversight of sunroofs have not kept pace with those dramatic size and design changes, and that more needs to be done to guarantee they are safe.

While experts we interviewed don't necessarily agree on what is causing the explosions of glass, they align on this: The bigger the expanse of glass, the harder to ensure that it won't shatter.

The odds of this happening to you are low, but when a vehicle's sunroof does shatter, consumers are often left on their own to deal with it. CR found that there is little consistency in how dealerships or automakers acknowledge or resolve this safety and repair issue, or about who should pay. (For consumer advice, see page 38.)

Shattered sunroofs have been reported in at least 208 models of vehicles representing 35 brands over the last 20-plus years in the U.S., based on CR's analysis of the consumer complaints database maintained by the National Highway Traffic Safety Administration.

Since 1995, American vehicle owners have gone to the trouble of filing at least 859 official accounts with the safety agency, with 71 percent of those incidents occurring since 2011. CR has read through those reports, and while some details vary, they're identical to Heather Savage's experience in this way: A sunroof suddenly shatters with no direct or known cause.

Among the complaints, there are at least 36 reports of injuries, mainly minor cuts or scrapes, but no serious injuries or deaths.

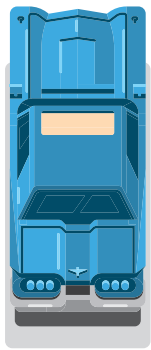
"A shower of glass fell on me," said the owner of a 2013 Hyundai Veloster,

PHOTO, PREVIOUS SPREAD: DAVID WUJCIK

Innovations in Sunroof Design Over Time

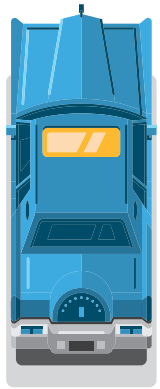
Cars have had sunroofs—panels that allow in air, light, or both—since at least the 1930s, though their popularity really took off in the 1960s. Here are some milestones in the evolution of their size and design.

1960
Ford Thunderbird



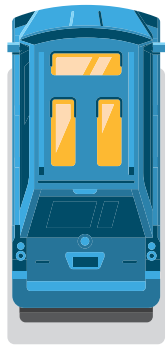
Ford featured a retractable sunroof on one of its most iconic models, promoting it heavily in ads.

1973
Lincoln Continental Mark IV



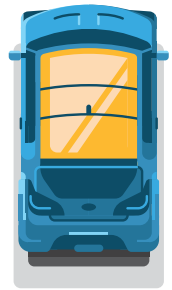
Lincoln's luxury sedan came with an option for a retractable glass sunroof.

2004
Nissan Quest



In one of the first "panoramic" sunroof systems, Nissan went for a more open-feeling cabin by using several individual glass panels.

2012
Hyundai Veloster



This Hyundai car shows the trend toward larger panoramic sunroofs that extend over nearly the entire roof.

in his complaint to NHTSA. "I managed to get to work with a bloody arm and forehead, and thank God I had no other cars close to me when it happened."

Some automakers–Hyundai, Ford, Nissan, Kia, and Toyota, for example–are more represented among the NHTSA complaints. The Scion tC, Hyundai Veloster, Kia Sorento, Nissan Murano, and Kia Optima were the most-cited models. The Sorento is the only car currently under investigation by NHTSA.

CR's analysis of the available government and industry sunroof failure data suggests that the problem is spread across the industry but is more prevalent in some brands–notably Kia and Hyundai–than their overall market share would indicate.

"When you have evidence of a problem like this, regardless of what the standards say, automakers should develop a better approach," says David Friedman, who served as NHTSA's acting administrator in 2014 and is now director of cars and product policy and analysis at Consumers Union, the policy and mobilization division of Consumer Reports. "They don't need to wait for NHTSA to prod them."

Consumer Reports would like to see several things happen:

- Any automaker with a pattern of shattering incidents should order a recall if it hasn't already.
- Regulators should expand their investigation of the Sorento to include other automakers and models. There is enough evidence to consider this a safety defect, Friedman says, and NHTSA should not wait for serious injuries to act.
- The auto industry as a whole needs to establish stronger safety standards for so-called panoramic sunroofs without waiting for regulators.

For this special report, we talked

ILLUSTRATIONS BY MICHAEL BRANDON MYERS

with owners who experienced these explosions and with automakers, regulators, glass and structural engineers, and industry and safety experts. We also reviewed federal defect investigations, industry technical bulletins, class-action lawsuits, and U.S. and international reports on sunroof explosions.

An Underreported Issue

Read through the consumer accounts in the NHTSA database and some stand out. A limo company from Long Island, N.Y., for example, told NHTSA in August of 2014 that it had suffered five sunroof explosions—all within its 18-vehicle fleet of 2014 Lincoln MKTs, made by Ford. One was parked in the company's lot when it exploded.

A 2012 Kia Optima owner wrote, "Either I was struck by a meteorite or Kia has defective glass." The driver, from Houston, reported minor glass cuts. (NHTSA redacts names in the self-reported complaints.)

For consumers, the pain comes in waves, first when they have to live through the experience, and then when negotiating repairs and determining who pays. A Marion, Ark., man with an exploded sunroof on his 2013 Ford F-150 pickup truck wrote, "Ford customer service denied my warranty claim, so I had to get it repaired under my insurance and pay the difference," which, he said, came to $1,009.68.

What's clear is that the consumer complaints in NHTSA's database are only a fraction of the actual sunroof explosions occurring in the U.S.

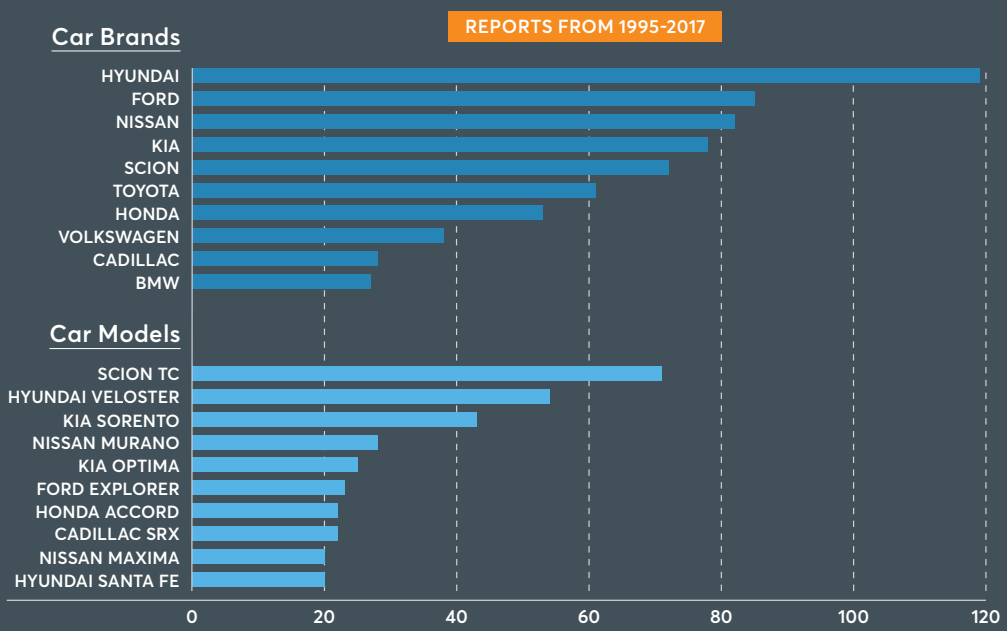
While owners of Kia Sorentos have filed at least 43 reports of shattered sunroofs with U.S. regulators, Kia has told NHTSA it has at least 156 Sorento sunroof cases in its own records. Kia Optima owners have filed at least 25 reports with regulators, but the company told NHTSA it is aware of 173 shattered Optima sunroofs.

Ford reported 88 sunroof explosions for its Edge crossover vehicle—11 times the number of complaints that have been reported to NHTSA.

The safety agency requested automaker data and other information on shattering sunroofs from 13 manufacturers as part of its defect investigation into the Sorento, but hasn't publicly shared all of what it

Car Models and Brands With the Most Reports of Exploding Sunroofs

American consumers have filed at least 859 complaints with the federal government about experiencing an exploding sunroof in their vehicle, usually within the first two years of the car's life. The list includes at least 208 models of cars and 35 brands of automakers. Here are the 10 models and 10 brands with the most complaints over the last 22 years.



Source: Data come from the National Highway Traffic Safety Administration Office of Defects Investigation's vehicle owner complaint database, for 1995 to September 2017. The complaints are self-reported.

learned. Documents from five of the 13 responses are posted on NHTSA's website, but even among those five, key responses are redacted or missing.

(NHTSA told us that it is working on getting the remaining eight into the public file.)

This lack of transparency on the true extent of this widespread safety issue may be why the problem has yet to fully bubble up into the public consciousness or to attract the serious attention of U.S. regulators. And it may be why consumers seeking remuneration have turned to joining class-action lawsuits brought against individual automakers.

Based on the number of complaints, Jason Levine, executive director at the Center for Auto Safety, says, "Something is going on. Calling it an act of God feels like an old industry playbook for a new car feature. The fact the roof is half glass instead of a quarter glass or no glass doesn't change the responsibility of the industry and the individual automaker to make sure the compartment is as safe as possible," he says, adding, "The concern has to be for safety first, and then the aesthetics."

The international community has been aggressive in trying to solve for this vulnerability—first prompted by South Korean regulators looking into a spate of complaints in 2013 linked to cars from the Korean carmakers Hyundai and Kia, and a few others.

NHTSA has been investigating the Sorento for model years 2011 to 2013 since 2013, yet visible progress appears to have slowed since spring of 2016.

When CR asked NHTSA about the status of the Sorento investigation, the agency said that it "continues to analyze test data and other information to determine if this issue is linked to a defect," but gave no sense of when the investigation will be completed.

The agency did not specifically address most of the questions we asked, including whether it supports a tougher standard for sunroof glass and if it is concerned about spikes in complaints since 2013.

Complaints of exploding sunroofs have been reported in at least 208 models of vehicles representing 35 brands, with most of the incidents occurring in the last four years.

The popularity and prevalence of supersized sunroofs has mushroomed in the four years that NHTSA has been investigating the Sorento, and in that time, there has also been a marked spike in reported incidents to NHTSA. Starting in 2013, consumer complaints to NHTSA more than doubled from the year before, from 41 to 100, and then nearly doubled again to 187 in 2014.

Features like panoramic sunroofs are often designed into luxury vehicles and then later proliferate to a broader span of vehicles. "They don't always transfer successfully," Levine says. "Whenever these sorts of reports crop up across manufacturers and across years, it starts to raise questions about whether there's been enough preparation for the expansion" of these types of features.

In Consumer Reports' last three Annual Auto Surveys, at least 35 people identified an exploding sunroof as a serious problem with their vehicle.

Melody Terai, a 2011 Kia Sportage owner from British Columbia, Canada, was one of them, telling CR her sunroof exploded as she merged onto the highway. Terai says she is still anxious about it: "Hopefully, amongst all the other recall issues, this one will be addressed before [a] death" happens.

Is Bigger More Dangerous?

Panoramic sunroofs are an impressive feat of engineering—a large pane of glass curved to the roof's aerodynamic contours and usually made of tempered glass, for its strength without added weight.

There's a seductive quality about them, perhaps because they connect people to the outdoors in the same way skylights do in homes.

And automakers have figured out that consumers will part with thousands of dollars for luxury packages that feature one. Some brands—including Hyundai and Kia—have made them available in almost every model. As a result, panoramic sunroofs have become both mainstream and larger, sometimes covering nearly the entire roof.

But there's no reason why sunroofs can't be big, spectacular—and safe. Auto-glass experts and structural engineers CR spoke with say there are ways to make sunroofs safer, beginning with the kind of glass they're made of.

In their investigation, South Korean car safety regulators found that a step in the manufacturing process known as "ceramic printing"—used to coat some of the glass, creating a darker area that hides mechanical parts—can make portions of the pane weaker and more vulnerable to shattering.

After investigating certain car models, South Korean safety officials asked a United Nations body in charge of global transport regulations to look at developing new standards for glass.

U.S. regulators are cooperating with their counterparts in the UN's Working Group on Panoramic Sunroofs. If the UN group, which has been meeting for two years, comes up with a tougher global standard, the U.S. could follow its lead.

In 2011, NHTSA toughened standards to prevent occupants from being ejected through side windows during a rollover, but chose not to issue a similar requirement for sunroofs. Research shows that using laminated glass—two panes fused by a sheet of plastic and designed to hold its form even when shattered—could reduce ejections in other parts of the car.

NHTSA told CR that the agency is researching "the structural integrity of sunroofs in a variety of circumstances, including reducing passenger ejection."

Industry sources mentioned that Ford had begun using laminated glass for sunroofs in some of its models. When asked about it, the company said: "Ford uses both laminated and tempered glass in vehicle applications depending on the engineering requirements."

Meanwhile, Volvo told us it has patented a design for laminating sunroof glass, "providing superior protection in rollover situations."

'We heard a shotgun sound come from above our heads and glass flew everywhere, including in the back where our 5-year-old daughter was sitting. Our sunroof literally exploded!'

—Owner of a 2014 Ford Flex, Warsaw, Ind., in a complaint to the National Highway Traffic Safety Administration

The Automakers' Response

In all, Consumer Reports reached out to 17 automakers to find out, among other things, how often they've heard from their customers about exploding sunroofs, whether they've detected any telling patterns, and if they would support a standard of glass that would make shatterings less likely.

While all companies acknowledged receipt of our questions, nearly all of their responses were short on specifics, with some companies citing pending lawsuits as a reason for not being more forthcoming.

Fiat Chrysler told us that "safety is paramount" and it continually monitors "the performance of our vehicles in the field." Many of the other automaker responses echoed that theme.

When asked about its sunroofs, Kia mostly blamed road debris: "When a cause of breakage is identifiable, it is always road debris or projectiles, even in cases involving users who insist no road debris caused the breakage."

Exploding Sunroof Incidents **1995-2017**

NUMBER OF REPORTS
200
150
100
50
0
187
3
The number of complaints to the government increased steadily from 1995 until 2013, and then spiked through 2015, particularly for Kia and Hyundai. Complaints have since declined for cars from those automakers. When asked why, Kia offered no explanation, and Hyundai said its recall of the Veloster fixed a flaw in the assembly process that may have damaged the glass.
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Source: Data come from the National Highway Traffic Safety Administration Office of Defects Investigation's vehicle owner complaint database, for 1995 to September 2017. The complaints are self-reported.

Blaming the Driver

Omid Rashid, a chemical engineer from Alberta, Canada, was driving his 2015 Toyota Venza last winter on a sunny, 40-degree day.

Rashid had noticed some popping sounds coming from the roof, but he didn't know what to make of them. Then he heard a sound "like a bomb," and suddenly he was showered in glass.

Shaken, and far from home on a remote highway, with ears still ringing, he waited hours for a tow truck to take him to the nearest Toyota dealer. He recalls going to sleep in a hotel room with glass shards still in his hair.

The next day, he says, a dealership technician said it was pretty common and likely caused by a rock, a theory Rashid says was also repeated by a Toyota corporate representative.

Rashid wasn't buying it.

He'd been expecting some sympathy or an apology. Instead, he got a repair bill of roughly $900 and, to his engineer's mind, at least, lots of faulty reasoning.

Rashid says he knew the temperature didn't fluctuate much that day (CR confirmed), and no other vehicles were nearby. And he says any rock spit out from his own car's tires would have flown backward, not up toward the roof. "The laws of physics say this is not possible," Rashid says.

Toyota said that while it could not comment on this specific incident, it "is committed to the safety and security" of its customers.

"There is no doubt in my mind, this is a safety defect," Rashid says. "I could have hit another car, I could have hit another obstacle. Thank God, there was nothing around me."

Searching for a Cause

While there is much debate over the prevailing cause for sunroof explosions, there is generally agreement on this: Current regulatory standards haven't kept pace with the size or design innovations in panoramic sunroofs. Basically, this means that some sunroofs are underengineered.

Glass in cars must meet minimum standards drawn up by the American National Standards Institute and SAE International, the society of automotive engineers. But those provisions haven't been revised since 1996—long before supersized sunroofs became mainstream.

Tempered glass is nearly always used in sunroofs because it meets the existing standard. It's the same kind of glass used in side and rear windows and is generally strong. Tempered glass, experts say, is sufficient when sunroofs are small and flat, but not for those that are large and curved.

One problem is that modern designs are more three-dimensional, and often involve bending glass to the curvature of the roof, notes Rob Vandal, senior director of research and development with Guardian Glass, a major American automotive glass supplier. That makes them more susceptible to impacts, even from very small objects, Vandal says, because they present a more vertical surface for an offending object to strike.

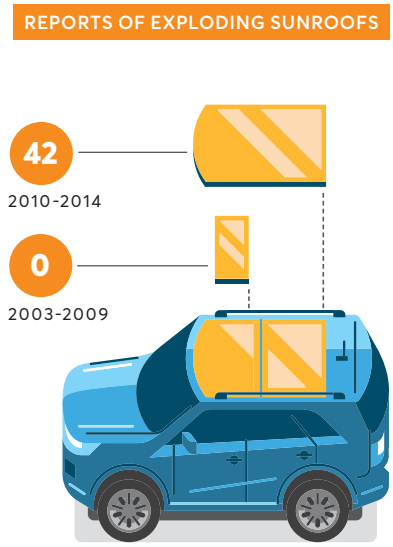
"Statistically, it's going to be subject to some failure, and the failure will be a catastrophic fall-in," Vandal explains.

Russ Corsi, who worked nearly 32 years for Pittsburgh-based PPG, a global supplier of auto glass, says larger sunroofs are also more prone to weakening over time as the pane absorbs impacts from bumps in the road, twists and turns of the car's frame, and "thermal shock"—the expanding and contracting from sudden temperature changes.

If sunroofs are "just breaking [on their own]," Corsi says, "it's likely to

An Investigation of the Kia Sorento

The Sorento is the only car being investigated by the federal government for sunroof problems. There were no reports of exploding sunroofs by consumers to the government with the Sorento's original design, from 2003 to 2009. But 2010 to 2014 models, with panoramic sunroofs, had 42 complaints. Reports dropped with the 2015 model. Kia told CR that changes to the Sorento design were not in response to the breakage incidents.



How to Protect Yourself

While Consumer Reports is not suggesting that you avoid buying a car with a panoramic sunroof, there are a few steps that you can take to protect yourself both financially and physically.

Before You Buy

Ask the dealer if the sunroof is made with laminated glass. The dealer may not know the answer, or be forthcoming, but it's worth asking. Make clear that you're asking about the kind of glass found in windshields, designed to stay in one piece if the glass breaks, not about tinted glass. Glass experts told us that if it is laminated, it is usually stamped.

Inquire about the vehicle's warranty. Specifically, ask if the vehicle's warranty covers manufacturing flaws and breakage to the sunroof.

Check with your auto insurance company. Ask about your coverage for incidents that aren't covered by the car's warranty, including exploding sunroofs. Some consumers reported that their policy covered the replacement; others did not.

Listen for warning signs. If you do buy a car with a sunroof, be aware that at least one of the people we spoke with heard some popping sounds prior to his sunroof exploding. If you hear such sounds, take the car to the dealership and let them know.

After an Incident

Try not to panic. Yes, it is likely to be loud, unexpected, and scary. But try to stay calm and maintain control of the car until you can reach a safe place to pull over and evaluate what happened. Consumers we spoke with who had been through one of these incidents all said they were able to avoid an accident or serious physical harm.

Document the damage. Pull out your phone and take photographs or video at the scene, if possible. Also, take note of time, date, location, weather conditions, and whether any objects that could have played a role were found in the car or nearby.

File a report with the National Highway Traffic Safety Administration. The safety agency says it relies on these reports, as well as other sources, to identify safety-related defects in vehicles and to come up with ways to address those problems. To report an incident, go to safercar.gov, or call the Vehicle Safety Hotline at 888-327-4236.

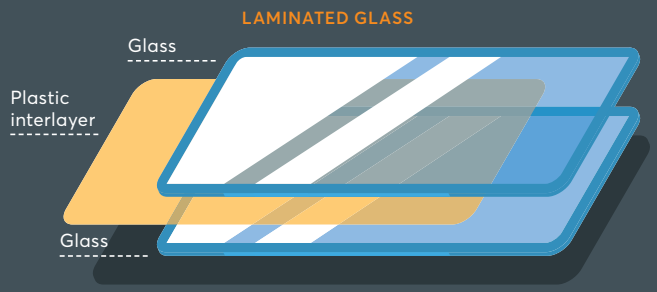
Contact your dealer and the manufacturer. Ask what they intend to do about it. Some consumers receive immediate offers of free repair, and even an apology. Others get a large bill of $1,000 or more. One car owner said it took a lot of complaining before the dealership agreed to replace a shattered sunroof free of charge. So complain, and don't accept the first "Not our problem!" you receive.

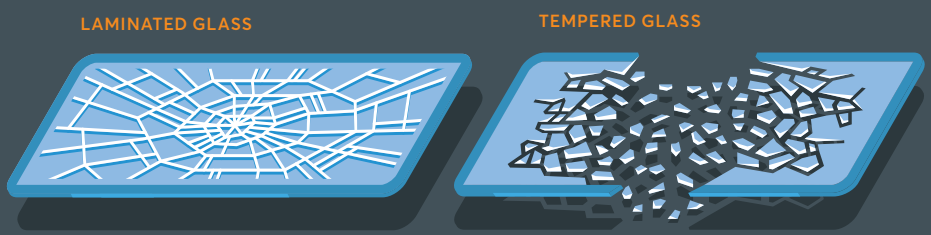
If the dealer and manufacturer won't help, call your insurer. The company may be able to pressure the dealer or manufacturer to fully cover the repair. And if they still refuse, your insurer may cover the cost, after you pay the deductible.

Consider joining a class-action lawsuit. If you're frustrated with the response from the dealer or manufacturer, consider participating in one of the ongoing class-action lawsuits seeking damages for owners of models with alleged sunroof flaws.

One Way to Make Sunroofs Safer: **Stronger Glass**

Using laminated glass—two panes fused by a sheet of plastic—instead of tempered glass could make sunroofs safer, in part because they are more likely to stay in one piece and hold their form when broken.





be a manufacturing flaw," noting "the larger the piece of glass, the smaller the margin of error."

For example, Corsi says one quality-control issue involves the beveled edge that surrounds the perimeter of roof glass. A chip at that edge can make the glass vulnerable to failure, which, with tempered glass, means an explosion.

Corsi says one way to prevent exploding sunroofs might be to use a hybrid glass that has characteristics of both tempered and laminated glass.

Further complicating the safety equation are the pressures every automaker feels to reduce costs and to keep vehicles lighter for better gas mileage. Automakers generally use the thinnest glass they can—about half a centimeter thick.

Instead of calling for a specific type of glass, regulators could add performance requirements that windshields already must withstand.

A Range of Remedies

All of this makes it nearly impossible to differentiate a stable sunroof from a vulnerable one. People might presume there are adequate safety standards for such a prominent feature as a panoramic sunroof. Consumers must rely on a manufacturer's quality control and regulatory diligence.

NHTSA can investigate and order recalls. Aside from its current investigation into the Sorento, the agency has conducted four previous sunroof-defect investigations since 2004. Two resulted in automaker recalls while the models were under NHTSA investigation—for the 2012 Hyundai Veloster and the 2004 Nissan Maxima. Two others closed with no defect identified—the 2004-2006 Cadillac SRX and the 2005-2006 Scion tC. Those two models are among the top 10 in consumer complaints.

Audi and Volkswagen have issued sunroof recalls without NHTSA first opening an investigation, Audi for its 2012 Q5 and the 2013-2014 A8 and S8, and Volkswagen for its 2013-2015 Beetle. A spokesman for both brands told CR, "We take the safety of our products seriously."

'Consumers are not getting a fair shake out of this. Automakers should take care of the problem. And if they don't, it's the government's job to step up and make them.'

—David Friedman, chief auto policy expert, Consumers Union

Other, less transparent approaches are available to automakers, like "technical service bulletins" sent to dealers. Bulletins typically tell dealers how to fix a known problem, but only after a consumer complains. Bulletins aren't an admission of a safety defect, and repairs aren't necessarily free. Hyundai, Kia, Mitsubishi, and Toyota have dealt with various sunroof fixes, including leaks, in this way.

Consumer Reports has identified about a dozen class-action lawsuits in the U.S. involving shattered sunroofs, finding complaints against Hyundai, Kia, Ford, Mercedes-Benz, Nissan, and Volkswagen, among others. Generally, these suits assert that automakers are failing to protect car owners, knowingly selling vehicles with safety defects, and not honoring warranties.

Brian Kabateck is an attorney for a Lexus owner in a case against Toyota. All his client is asking, he says, is that the manufacturer does right by its customers. "Just extend the warranty," he says. "It's not like we're trying to make a bazillion dollars."

In response to a suit Hyundai is facing, the company asserted last December that there aren't any problems or defect with its sunroofs, and denies it failed to warn drivers about any "alleged" danger.

When asked to explain the recent decline in Veloster shattering incidents, Hyundai told CR its recall had solved the original problem. The company's investigation blamed the high number of incidents on a malfunctioning "unloading station robot" that could have damaged the glass during the manufacturing process.

Picking Up the Pieces

Heather Savage says her husband, Roy, made it his job to figure out a fix for the year-old vehicle. He started with the Nissan dealership. "I told them that the sunroof just exploded, and they're like, 'Well, you should be fine to drive it. But it's nothing we do; we don't fix it.'"

With five kids and a busy life, he didn't take time to argue, but contacted his insurer, who told him to use a glass servicer. With glass coverage, their portion of the $1,005 bill was a $100 deductible.

Next, he searched the internet for answers: "I was a little miffed," he says, and disappointed "that sunroofs don't have a protective membrane making them like windshields."

Nissan told CR it has no evidence of a sunroof issue with its cars and suggests consumers should submit claims to their insurance company.

Since her episode, Heather Savage says she can't stop worrying about all the glass overhead. The sunroof shade guard remains permanently on duty, she says.

"I'm really hesitant to open it, or to go to a car wash, or do anything that might potentially break it," she says. "It's kind of scary."

Getting Help at Home

Many seniors want to stay in their homes as they age, but caregiving is hard work for adult children and hiring help is costly. Here are smart strategies you need.

by Penelope Wang

Hands-On Care
Sherri Swansey helps her mom, Ruth Thompson, style her hair.

PHOTOGRAPHS BY TIM KLEIN

Two years ago, Sherri Swansey, a school social worker in the Chicago area, noticed her mom and dad beginning to behave oddly. "They told me people were stealing money out of their bank accounts, and after switching banks, they began making the same complaints," says Swansey, 47. Her concern grew when she discovered they were having trouble shopping for food and preparing meals.

Swansey and her brother Melvin, who both live nearby, stepped in to help with finances and housekeeping. She also arranged for neuropsychological evaluations. The findings were grim. Her father, Rayfield Thompson, was diagnosed with Lewy body disease, a form of dementia, and her mother, Ruth, with mild cognitive impairment.

"My initial reaction was extreme fear," Swansey says. "Oh my God, I have to pay my parents' bills and navigate through things I never did before, and my family is looking to me to tell them what to do."

Clearly her parents, already in their 80s, needed regular caregiving. But moving the couple out of their home of 46 years and into a nursing facility was out of the question. "It would have been too stressful for them," Swansey says. Tapping her parents' savings, she and her brother arranged for a home-care worker to look after her dad during the day. A second caregiver for evenings was brought in when he began declining last fall. He passed away in March at age 86.

Her mom, now 84, gets help from a home-care aide two days a week and attends an adult day-care program three days. Swansey, married with two sons, 11 and 17, visits her mother every other day, a task she juggles with her full-time job. Melvin helps take care of his mother's house and fills in the caregiving gaps. Two other brothers, Steve and Byron, live out of state and visit once a month.

But more caregiving help may be required. "There are times my mom will call, crying, and can't explain why, and I call my brother to go over there," Swansey says. "I haven't really had time to grieve for my dad–it's really overwhelming."

The Caregiving Challenge

Swansey's struggle is shared across the country. The number of Americans age 65 and older is projected to reach about 73 million in 2030, up from 46.2 million in 2014, according to the U.S. Census Bureau. And 70 percent of them can expect to use long-term care, government data show. Yet about 80 percent of older adults say they intend to age in place, according to a 2011 survey by the National Conference of State Legislatures and the AARP Public Policy Institute. That means they may eventually require in-home services.

The responsibility for this care now falls mainly on family members. "America, unlike most developed countries, lacks a comprehensive national long-term-care support or insurance system," says Bruce Leff, M.D., a professor of medicine at Johns Hopkins University School of Medicine. It's a hodgepodge of family support and self-pay care at home, plus other private-pay options such as assisted living and short-term skilled home health services. (Nursing homes are mostly funded by Medicaid.) Family members often end up stitching together a patchwork system by hiring private aides, tapping local resources, and providing hands-on help.

But this ad hoc system could be headed for a breakdown

Side by Side
Swansey says her mother, who has mild cognitive impairment, still enjoys preparing meals.

with smaller families and fewer children to take on the burden compared with previous generations. In 2010 there were 7.2 family members (potential caregivers) for every person 80 or older, according to a 2013 study by the AARP institute. By 2030 that ratio is expected to drop to 4 to 1.

Yet the cost of hiring help is daunting. In 2017 the national median cost for 44 hours a week of nonmedical home-care services was $47,934 a year, according to Genworth, a long-term-care insurer. The national median cost of a one-bedroom apartment in an assisted-living facility or a semiprivate room in a nursing home ran $45,000 and $85,775, respectively. Most of these costs are out of pocket, because Medicare generally doesn't cover long-term care. Medicaid kicks in only after financial assets are spent down and other eligibility standards are met. (See "Help With Home-Care Bills," on page 46.)

It's not surprising that many families end up scrambling when illness strikes, with the responsibility often falling on the nearest relatives. According to a recent nationally representative CR survey of 1,000 adults, 45 percent of current caregivers reported spending 20 hours or more a week on the task, and 62 percent said they were paying out of pocket or using personal savings, with half spending $500 or more a month. A 2015 survey by the AARP institute and the National Alliance for Caregiving found that six in 10 caregivers said their duties had a negative impact on their job, including having to reduce work hours or take a leave of absence.

Strategies for Success

If caregiving may be in your future, develop strategies now. And if you're already a caregiver, there are resources to make the task easier. Here are some guidelines to consider:

1. START THE CONVERSATION.
If your parent or relative requires caregiving, reach out to other family members. Build a team for handling specific tasks such as housework, monitoring medication, and staying on top of paying bills. This approach can minimize disagreements or bad feelings if someone is left out of the discussion or stuck with an unequal share of the burden.

Of course, it may not be easy to raise the issue of caregiving with your mom or dad, who may resist the idea. "Many older adults don't want a stranger coming into their home, or they refuse to admit they need help for fear of losing independence," says Bobbi Kolonay, R.N., a nurse and life-care manager in Pittsburgh.

If your parents push back, consider easing into it. Start with small moves—perhaps hiring help for a single task, such as cooking or doing the laundry. "Once you have someone coming in regularly, your parents may look forward to the help and the companionship," Kolonay says. That might make it easier for them to accept help later with more tasks.
SMART STRATEGY: ***Make the home safer.*** Your parents won't be able to age in place if they can't get up and down the

MAKE YOUR HOME ELDER-FRIENDLY

These affordable upgrades can make an existing home more functional without sacrificing style.

AGING IN PLACE may be the last thing on your mind when renovating a home, especially if you're under 50. But not considering design upgrades now could be a costly mistake in years to come.

We're not talking wheelchair ramps or shower grab bars, but "universal design" elements—eye-pleasing choices that make the house work better for anyone at any age.

The upgrades can be too expensive on their own. But as part of a broader renovation, the additional cost can be minimal, says Barbaro Ponce, owner of Adapted Living Spaces in Atlanta.

Here are some universal design elements that are on practically every renovator's wish list anyway:

Curbless Showers

A bathroom floor that continues straight into a walk-in shower without anything to step over is de rigueur at upscale hotels. A Zillow report found that homes with them sold for 4.6 percent more and 38 days faster than the average listing. ***Cost:*** Thanks to new waterproofing membranes and a few carpentry tricks, if you're gut-renovating your bathroom anyway, this adds only about $500 to $1,250 to your bottom line, says Mark Mackmiller, co-owner of Mackmiller Design+Build in the Minneapolis-St. Paul metro area.

Upstairs Laundry

Don't even think of remodeling the master bathroom without bringing the laundry up from the basement, if it's down there. ***Cost:*** From $4,000 to $7,000.

Widened Doorways

Most shared living-space renovations include removing walls between rooms to open up the floor plan. But even when walls can't come down, widening doorways to at least 32 inches, preferably 36, can increase flow and livability. ***Cost:*** Retrofitting an existing door might cost about $1,200 to $1,500. But if you're framing out a new doorway anyway as part of a project, it's only $50 to $200 more for a larger door.

Simple Upgrades

Lever-style doorknobs are easier to use in old age. And by setting new electrical outlets 24 inches off the floor instead of the usual 12 to 18, you eliminate the stooping usually required to plug in a vacuum. ***Cost:*** $20 to $25 per doorknob; no extra cost for resetting the outlets.
—Josh Garskoff

A Show of Support
Roger Halleen cares for his wife, Barbara, who has Parkinson's disease.

Help With Home-Care Bills

Here are some often overlooked ways to ease the financial burden.

IF ASSETS OR income disqualify your parents from Medicaid benefits, it's still possible to find public and not-for-profit programs that either subsidize home care for middle-income people or offer aid in other ways.

Start by checking with the state or county department on aging where your parents live. You can find it at eldercare.gov, a site run by the Administration on Aging. Another useful website is payingforseniorcare.com.

Here are steps to take if you're not Medicaid-eligible:

Look Into Government Programs

Investigate PACE. Programs of All-Inclusive Care for the Elderly is designed to keep Medicaid- and Medicare-eligible people out of nursing facilities. Participants can get in-home care, including help with activities of daily living, such as meals, dental and medical care, prescriptions, and chaperoned transportation, among other benefits. It's available in 32 states, though not in every community. (In some states, PACE is called LIFE, for Living Independence for the Elderly.) Medicaid-eligible patients get the service free. Others may be charged a monthly premium, though far less than they would pay a private service.

See what your state provides. In some states, seniors who don't qualify for Medicaid can participate in reasonably priced, state-funded home-care programs. Participants are responsible for an income-indexed monthly copayment.

Jersey Assistance for Community Caregiving (JACC), for instance, supplies caregivers to New Jersey residents who are 60 and older and deemed clinically eligible. There are income restrictions, though a person's primary home value isn't considered. Comparable programs exist in Connecticut, New York, and Oregon.

Hawaii's new Kupuna Caregivers program offers vouchers of up to $70 a day to pay for adult day care and other services so that caregiving relatives who are employed full-time outside the home won't have to miss work.

Use veterans benefits. Aid and Attendance and Housebound allowances are supplemental monthly benefits for veterans already receiving a monthly VA pension and requiring healthcare. Veterans and surviving spouses qualify if they have certain disabilities or need help with activities such as dressing, bathing, and feeding, among other criteria. Go to the pension section of vets.gov for more information.

Veterans accepted into Veteran-Directed Care, a home-care program available through about one-third of VA medical centers, get a flexible monthly budget—the national average is $2,000—to pay a professional or family member or friend for home care. Veterans and their families decide the care and services needed. The program is open to any veteran who meets the criteria, including requiring help with three or more activities of daily living. There are 66 active Veteran-Directed Care programs in 38 states, as well as in Washington, D.C., and Puerto Rico. If none is offered locally, you can participate in a neighboring area's program. Get more information from your Area Agency on Aging.

Enlist Volunteers

Find a companion. The Senior Companions program of the federally

stairs or if the bathroom won't accommodate a walker or a wheelchair. Nearly 70 percent of those age 85 and older live in homes that lack key accessibility features, according to a 2015 report by Harvard's Joint Center for Housing Studies. To get help with modifications, you can find a certified aging-in-place specialist through the National Association of Home Builders. (See "Make Your Home Elder-Friendly," on page 44.)

2. TAP INTO SUPPORT SYSTEMS.

The role of caregiver often starts slowly, as Roger Halleen, 59, discovered. His wife, Barbara, now 58, was diagnosed in 2008 with early-onset Parkinson's disease. The symptoms were mild at first, and she continued to work as a physical therapy assistant. But by 2010 the condition was causing periods of immobility, and Barbara had to quit her job.

"I've gradually made changes," says Halleen, a maintenance foreman for the public pool system in Peoria, Ill. These days he begins his workday at 7:30 a.m. rather than 5:30 a.m. to make sure his wife has her medication and can get around. They also get occasional help from nearby family members and friends. "We know what's coming in the future," Halleen says. "I hope I can keep going to retirement and get full benefits, but I'm not sure."

Joining support groups has made a big difference. Barbara attends exercise classes for Parkinson's patients. She and Roger co-chair the Central Illinois Parkinson's Support Group. "It's been really helpful to have people to talk to," Roger Halleen says. "We've formed friendships that have carried over beyond monthly meetings."

For many families, the caregiving role is a result of a medical emergency. If it's a hospitalization, talk to the discharge planner about the medical care your loved one will need.

funded Corporation for National and Community Service sends volunteers into homes to help with nonmedical daily living tasks. These companions are at least 55 years old. They spend 15 to 40 hours a week serving two to four senior clients. Go to nationalservice.gov for more information.

Accept a helping hand. Assistance networks run by religious organizations and other nonprofits coordinate volunteer programs in some states. In Minnesota, volunteers from the not-for-profit Living at Home Network help 10,000 seniors with transportation, home-delivered meals, home chores, some nursing care, and accessibility modifications, such as building wheelchair ramps.

Get free meals. Any homebound senior or disabled person is eligible to receive Meals on Wheels, though the focus in many communities is on lower-income recipients. Most clients get one meal per day. Volunteers deliver meals, socialize with the elderly, and assess their living situation for safety—a plus for someone living alone. There may be a waitlist in your area. For information, go to mealsonwheelsamerica.org.

Care for the caregiver. Respite services help unpaid caregivers refuel mentally and physically by providing a qualified person to take over for a few hours or overnight. Services may be available through your state or local Area Agency on Aging or through a not-for-profit. The care may be offered free or for a fee far below market rates. Find local respite programs through the Respite Locator at Access to Respite Care and Help, at archrespite.org.

Take Advantage of Tax Breaks

Claim your parent as a dependent. Check with a tax professional about whether you should claim a parent as a dependent on your federal return. You can take that step regardless of whether you live together if you pay for over half of his or her support and your parent's gross income is less than $4,050. (Tax-exempt income, including certain Social Security benefits, isn't considered in that total.) You also may be eligible for a dependent-care tax credit; see IRS Publication 503, "Child and Dependent Care Expenses," for details.

Write off medical costs. If home care means costly supplies, services, and modifications to your relative's home, your family might save more money by having a lower-income senior claim them on his or her own taxes.

Only the unreimbursed costs that exceed 10 percent of adjusted gross income are deductible. Go to the deductions section of the IRS's Interactive Tax Assistant (irs.gov/help/ita) or consult a tax pro.

Use employee benefits. If the senior is your dependent, you can contribute up to $5,000 in pretax dollars to an employer's dependent-care flexible spending plan and $2,600 to a medical flex account. At a marginal tax rate of 28 percent, you'll save $2,128 putting away those maximums. Savings in a tax-favored health savings account can be used the same way toward the qualified medical expenses of your dependent parent.

Don't Give Up on Medicaid Eligibility

Even if your parent can't spend down assets in time to qualify for Medicaid, investigate strategies to make him or her eligible. Diverting some income to a trust may do the trick, says Bernard Krooks, a New York-based estate and elder-law attorney. These legal vehicles go by various names, including a Miller Trust, pooled income trust, or Qualifying Income Trust.

New York State is particularly generous to seniors seeking Medicaid-funded home care. When care will be at home, the five-year Medicaid "look back" period for depletion of assets doesn't apply. Seniors can transfer their money to family or trusts as soon as one month before applying for home-based "community Medicaid."

"The risk, of course, is that if the senior then needs nursing-home care, the five-year look-back still applies for Medicaid-funded care," Krooks notes.

—Tobie Stanger

You'll also want to speak with your employer about family caregiving needs. Under the federal Family Medical and Leave Act, larger companies (with 50 or more employees within 75 miles) and public agencies must provide up to 12 weeks of unpaid leave to eligible workers to care for a seriously ill parent or immediate family member. (To qualify, you must have worked 1,250 hours in the past 12 months.)

SMART STRATEGY: ***Take advantage of tech.*** Apps and devices may help your loved one manage longer without help. Try using Skype or FaceTime to check in. Digital pill reminders can help keep track of medication. Amazon's Echo or other smart-home devices can answer questions and control devices by voice, which can be helpful for someone with mobility problems, Leslie Kernisan, a geriatrician who blogs at Better Health While Aging, points out. You can find suggestions for helpful devices on her blog as well as at Tech-enhanced Life, a website run by a group that evaluates and reviews products for older adults.

3. SAFEGUARD YOUR LOVED ONE'S FINANCES. It's crucial to have a full picture of your parents' finances, which will determine how much long-term care they can afford. But it might be difficult to raise the topic. One strategy is to bring up your own money concerns and then ask them for advice, says Miriam Zucker, an elder-care consultant in New Rochelle, N.Y. With your parents' okay, you can help them track their bank and brokerage accounts as well as assist in managing their cash flow. You can also keep an eye out for odd transactions. "Cognitive decline among older people is a huge issue, since they can become increasingly vulnerable to elder fraud," says Shirley Whitenack, an elder-care lawyer in Florham Park, N.J. "People are often shocked when they find

out what their parent's finances look like."

Caregivers should also be sure their family members have key estate-planning documents in place. This includes a durable power of attorney, which will give you or a trusted relative the authority to make financial decisions on a parent's behalf if he or she is incapacitated. Your mom and dad should also have healthcare proxies, which authorize a family member to make medical decisions if they can't, as well as a HIPAA form, which allows medical providers to speak with you about their care.

SMART STRATEGY: ***Consider medicaid eligibility.*** Lisa Mott and Karen Palonis, 56-year-old twin sisters in Pittsburgh, have been caring for their mother, 82, who has Alzheimer's disease, for six years. She has been living at home, and her savings go toward paying caregivers. But eventually she may have to live in a nursing home, which could deplete her assets. So three years ago the sisters turned to free legal services offered by their local Area Agency on Aging. "My mom got her will and medical and regular power of attorney done," Palonis says. The attorney also helped them plan for their mom's eventual eligibility for Medicaid, which has a look-back period of five years and strict income limits.

4. MANAGING MEDICAL CARE

One of the most overlooked challenges in home caregiving is simply figuring out how to do it. "Even nonmedical caregiving requires some training," says Howard Gleckman, an expert on issues related to aging at the Urban Institute, an economics and social-policy think tank in Washington D.C. "It's not that easy to transfer a person from a bed to a wheelchair, and giving your parent a bath can be emotionally difficult, not to mention physically risky."

And if your parent has acute medical needs, you could find yourself providing care that would otherwise be delivered by a nurse or doctor. According to a 2012 study by the AARP institute and the United Hospital Fund, 46 percent of family caregivers did medical or nursing tasks for ailing loved ones, including injections and wound care. "There's very little help for family members to learn how to do these tasks," says Susan Reinhard, R.N., Ph.D., senior vice president at the institute.

Rules in many states bar anyone but family members, nurses, or certified nursing assistants working under a clinician to administer medication or provide other types of medical care. One way to pick up these skills is through instruction by nurses at the hospital where your parent is being treated. Or you can get tips from home health aides or physical therapists who may come for a limited time after your parent is discharged from a hospital. You can also get instruction from support groups as well as from online videos, such as those offered at Elder Stay at Home ($19 per year).

SMART STRATEGY: ***Get help from the hospital.*** If your parent is being treated in a hospital, ask the discharge planner about the medical care that will be required, as well as any support you can access. Providing that information may be a legal requirement. A multistate initiative called the Caregiver Advise, Record, Enable (CARE) Act is rolling out. It's designed to train family members to manage complex medical care after a loved one is discharged. So far nearly 40 states have enacted versions of this legislation, but many hospitals have only started to implement these programs. For family caregivers, the help can't come soon enough.

To read Part 1 of this report, about assisted-living options, see the October 2017 article "Who Will Care for You?" or go to CR.org/assisted2017.

HOW SENIORS SUPPORT EACH OTHER

These three creative alternatives can keep elders in their homes even if family isn't nearby.

MANY PEOPLE WHO want to stay in their homes as they get older don't have family or other resources nearby to make it feasible. So in some parts of the country, seniors have banded together. Some communities are planned housing developments, while others have grown organically. Here's what you need to know about these communities and how to find one:

Senior Village

What it is: A nonprofit membership organization, with volunteers and a paid staff, that coordinates programs for older residents who live in a defined geographic area. There are about 200 in the U.S. and more than 150 in development, according to the Village to Village Network, a nonprofit that helps organize the villages. To find one, go to vtvnetwork.org.

How it works: People live independently in their own home and pay a membership fee for services coordinated by their local Senior Village office. Member benefits might include transportation to stores and medical appointments, home repairs, and healthcare information. Villages also offer organized activities, such as fitness groups and cultural outings.

What it costs: Prices vary, but at Capitol Hill Village in Washington, D.C., for example, membership dues are $625 per year for an individual and $925 for a household.

Senior Cohousing

What it is: A planned development of private homes or townhouses clustered around a

Building Community
Jerome and Pat Kelley of St. Louis chat with Joan Hirst, who organizes volunteers to help seniors at home.

shared common house that usually has a large kitchen, a dining room, and recreational space. There are 13 such communities and 15 in development, according to the Cohousing Association. For a directory, go to cohousing.org.
How it works: Residents own their homes, but the heart of the community is the centrally located community center, where they plan and share meals and hold social functions. A community typically has 20 to 40 houses designed to support aging in place, with features such as entries without steps and one-level floor plans. Residents coordinate services for each other, such as landscaping and transportation.
What it costs: Home prices vary depending on the location. At Wolf Creek Lodge in California, one- and two-bedroom condo-style houses range from $200,000 to $500,000, and residents pay a monthly homeowners association fee of $400.

Naturally Occurring Retirement Community (NORC)

What it is: NORCs are communities with a large proportion of older residents, often people who have aged in place. They are found in urban high-rise apartment buildings and residential neighborhoods. There are more than 80 NORCs with supportive services formed by residents working with community partners.
How it works: A NORC typically has a small paid staff and volunteers to provide services. Residents pay monthly dues for such services as in-home computer help, referrals for healthcare providers, and social programs. The communities often get funding from local and state agencies. Go to norcblueprint.org for more information.
What it costs: At the St. Louis NORC, which serves a 3-mile area in the city's Creve Coeur neighborhood, annual membership dues are $35 for an individual and $50 for a couple.
—Donna Rosato

How to Hire In-Home Help

Take these steps to find someone you can trust.

Most people who need long-term care rely on family for assistance, but about one-third get help from paid caregivers.

Finding and managing outside help can be stressful and time-consuming. You need someone reliable and trustworthy with the right skills. But you also want someone your loved one will be comfortable with.

Here are some steps to help you find quality home care:

Assess the Type of Care You Need

There are generally two types of home aides: home health aides, who provide basic medical care, such as managing medication and checking blood pressure, and personal care aides, who help with household chores and personal needs.

A home health aide might be the right choice if your loved one has an illness or disability and needs medical attention. Otherwise, a personal care aide, who can help with bathing, eating, dressing, or household chores, may be your best option. Elderly people living at home, especially those who don't drive or have family nearby, often spend a lot of time alone. A personal care aide can also serve as a companion, someone to share meals and do activities with, or someone to talk to during the day. People with dementia, who may be physically healthy but can't be left alone, also can benefit from companion care.

Know What It Costs and Whether It's Covered

Home health care and homemaker-type services cost roughly the same, about $21 per hour or $48,000 per year for a 44-hour workweek, according to the 2017 Cost of Care survey from Genworth, a long-term-care insurance company.

You'll pay a higher rate if you need help during evenings, holidays, or weekends. Hiring an aide, such as a nurse or certified nursing assistant, who can provide a higher level of care (changing a catheter, for example) will cost more.

Home care in rural areas, where there are fewer available workers, is more expensive. For example, the median annual cost of home health care is almost $64,000 in Alaska and North Dakota, the Genworth survey found.

A less expensive option is adult day care. According to Genworth, the median annual cost for five days a week is $18,200. Adult day-care programs provide many of the same services you'd get from a home health aide or personal care worker, often in a senior center or nursing facility. Go to the website of the National Adult Day Services Association, at nadsa.org, for information about local programs.

Many people are surprised to find that Medicare, the health insurance program for people over 65, doesn't cover long-term-care needs, whether it's assisted living, a nursing home, or in-home care. But for short-term medical needs, it does cover some in-home care. Medicare typically pays for services after a person has been hospitalized or has an illness or injury and a doctor certifies that he or she needs care for that specific condition at home.

And if you have long-term-care insurance or qualify for Medicaid, you may have coverage for some home care.

Still, most people who need home care pay for it out of pocket. (See "Help With Home-Care Bills," on page 46.)

Know Where to Look for Help

Your community: Most people still rely on recommendations from family and friends, their doctor, or support groups. Word-of-mouth can be a good way to find a quality caregiver or a home health staffing agency—or which ones to stay away from, says Susan Misiorski, vice president for workforce innovations at PHI, an advocacy organization for home-care workers.

Your employer: About 13 percent of employers offer elder-care referral services, according to a study by the Society for Human Resource Management. Some go beyond a simple referral. For example, Care@Work, which provides employee benefits, assigns a social worker to do a health-needs assessment and connects people to vetted providers.

Locator service: There are thousands of staffing agencies that specialize in home care. To find one in your area, check the federally funded Area Agency on Aging's free home-care locator service, at payingforseniorcare.com. The National Association for Home Care & Hospice also has a free database listing thousands of home-care agencies, at agencylocator.nahc.org.

Online: There are online elder-care matching services, such as Care.com and ElderCare.com, where home-care providers looking for work post profiles. You set the criteria and get a pool of candidates to contact. Some services, such as Care.com and CareLinx, do basic background checks. At Care.com, you can pay for higher-level screenings; a criminal and driving-record check, for example, is $69.

Decide Who's the Boss

Your next decision is whether to hire a caregiver through an agency or on your own. There are pros and cons to both. If you work with an agency, it will do the background screening, the hiring (and firing), and the tax and legal paperwork.

On the downside, you might have less choice over who comes to your home. "They're going to give you who is available; you don't get to select the person," Misiorski says. Agencies often divide the job between several workers, which can make it difficult to develop a good relationship with a caregiver.

If you're doing the hiring yourself, you can choose the person you think will provide the best care. It's usually less expensive than using an agency because you don't have to pay for all of the services built in, but it's more work, too.

You'll conduct the interviews, arrange a schedule, negotiate a salary, and spell out job responsibilities. If the home-care worker is sick, you'll need to arrange for a backup.

You'll also be responsible for the administrative tasks you need to do when you employ someone. (See the box at right.)

Check Out Your Caregiver

It's not difficult to find scary stories about elderly people being scammed by caregivers, like the home health aide who bilked an elderly couple in New York out of nearly $180,000 by forging checks to herself from the couple's bank account. The aide, who worked for the 92-year-old man and his 88-year-old wife, was sentenced to up to five years in prison earlier this year.

But Leah Eskenazi, director of operations for the Family Caregiver Alliance, a nonprofit organization, says most people who hire in-home care aren't ripped off or abused.

A bigger concern is whether the person you hire has the right training and is reliable, Eskenazi says. If you go through a home-care agency, ask about its screening process. Does it merely verify a worker's identity or will it do a thorough check–criminal history, driving record, and references?

If you're hiring a caregiver yourself, do your own background check. Ask for references from former employers and call them all. Use a service to check criminal histories and driving records, and to verify licensing. You can use background-check services at companies such as C3Intelligence, which charges $15 to $30 (not including court fees) depending on how comprehensive the investigation is.

Ensure a Good Fit

It can take a lot of time to find a home-care aide, but the effort should pay off in the long run. When interviewing candidates, ask probing questions about how they handled difficult situations and managed disagreements with people they cared for, Misiorski says. And make sure your loved one is part of the interviewing and selection process.

Once you find someone, make the transition easier by having the aide start gradually, perhaps a few hours a week, or ask the staffing agency for a trial period. A family member or friend should be there the first few days to make sure things go smoothly. Check in frequently with your loved one and set up regular times to meet with the caregiver. Consider hiring a geriatric-care manager who can oversee the aides if you can't or you don't live nearby. You can find certified geriatric-care managers, who charge $50 to $200 an hour, through the industry's professional association, at aginglifecare.org.
–Donna Rosato

THE RIGHT WAY TO PAY A CAREGIVER

WHETHER YOU hire a close family member or a stranger through word-of-mouth, ensure the best care for your parent—and protect your finances—by following these steps:

Don't pay under the table. Untaxed cash payments with no records can get you in trouble with the IRS and be construed as "spend down" gifts, potentially disqualifying your parent from future Medicaid-funded nursing-home care.

Doing things right involves work. If you pay a caregiver $2,000 or more a year or $1,000 a quarter, you'll need to give him or her a Form W-2. A CPA can help with these details. Or contact a service such as QuickBooks Payroll or SurePayroll, which offer turnkey payroll systems for home-based care. As an employer, it's also up to you to check the worker's immigration status.

Increase your insurance. If a regular caregiver is injured in the home and sues, your homeowners insurance might not cover all the medical or legal costs. "The resulting liability to you and your family could be financially devastating," says P. Mark Accettura, an estates and elder-law attorney in Farmington Hills, Mich.

Even when your homeowners insurance covers an injured worker in your home, it might not be sufficient to protect your financial assets.

Check with your insurer about buying or increasing umbrella liability coverage. Depending on your state, you also might need to buy workers compensation and disability benefits insurance.

Have a formal arrangement. Laying out the hours, tasks, pay, and other factors is especially important if you're paying a relative to do the work. A written contract can help you prove that the money paid wasn't a gift, a key consideration for Medicaid eligibility later. It also makes it clear when the relative's work ends and the work of others begins, such as a paid evening caregiver.

"It has to be an arm's length transaction," says Debra Speyer, an elder-law attorney based in Bala Cynwyd, Pa. "The person writing the check should be different from the one receiving the money."

A tax expert can lay out the most tax-efficient employment arrangement with a caregiving relative.

Generally, to pass muster with Medicaid, the hourly rate must be in keeping with market rates for unskilled home-care workers in your area. "If in your neck of the woods they're getting $20 or $30 an hour, you can't pay $80," notes Bernard Krooks, an elder-law attorney in New York.

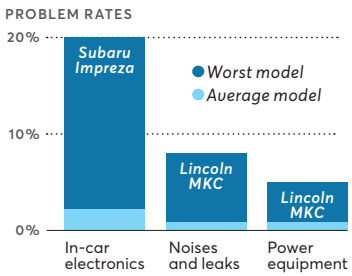
The caregiver should keep a log of when he or she works to jibe with the payments made. Payments made months or years after the work was done won't pass muster with Medicaid, notes Paul T. Joseph, a CPA and elder-law attorney in Williamston, Mich.

"The money has to be paid after the agreement was put in writing," he says. "Past consideration is no consideration."
—Tobie Stanger

Road Report

Ratings from our test track plus expert car advice

Most common problems for 2017 models



Don't Let This Happen to You
Using our reliability scores can help minimize costly, time-consuming repairs.

Cars That Go the Distance

We surveyed the owners of 640,000 cars to reveal the ones you can—and can't—count on. Plus, why buying a new or newly redesigned model might be a bad idea.

by Patrick Olsen

Source: CR Annual Auto Reliability Survey.

FOR PIONEERING CONSUMERS, nothing beats the thrill of owning something completely new. These early adopters are the ones you see lined up around the block when a next-generation smartphone is released or racing to the dealership when a redesigned or new car model rolls into showrooms.

But our Annual Reliability Survey, in which consumers provide us with data on hundreds of thousands of cars, has consistently shown that this pioneering spirit is not without consequences. Our latest survey of about 400,000 subscribers who own 640,000 vehicles reveals that all-new or updated models are now more likely than older ones to have a wonky engine, a jerky transmission, or high-tech features that fail outright.

The problems often arise when automakers incorporate new technologies into their cars. Over the past decade, for instance, automakers have embraced new transmission technologies in an effort to improve fuel economy, says Anita Lam, associate director of data integration at Consumer Reports. "As more eight- and nine-speed and continuously variable transmissions hit the market, many owners have reported issues with them breaking down or shifting badly," Lam says. Not all cars that have these transmissions fare poorly, but first-year models that feature them draw an inordinate number of complaints from owners in our survey.

In this year's survey, some owners of the 2017 Buick LaCrosse's eight-speed transmission complained about rough shifting, which can make the car lurch. Other recently redesigned models that buyers may want to avoid because of similar transmission problems include the 2015 Acura TLX and the 2016 Hyundai Tucson.

PHOTO: GETTY IMAGES

On the A-List … or on the Way Out

THE RELIABILITY of a handful of models has improved enough over the past year to earn them a place on CR's list of recommended vehicles. More than twice as many have been knocked off the list, based on declines in their Overall Score. This score reflects a car's performance in our road tests; results from our reliability and owner-satisfaction surveys; the availability of a frontal-crash-prevention system; and, if applicable, results from independent crash tests.

Newly Recommended Models With Improved Reliability

Audi A3, Chrysler Pacifica, Ford F-150, Mercedes-Benz S-Class, Ram 1500, Volkswagen Golf Alltrack, Volkswagen Passat

No-Longer-Recommended Models With Declining Reliability

Acura MDX, Buick LaCrosse, Cadillac CT6, Cadillac XTS, Chevrolet Camaro, Chevrolet Corvette, Chevrolet Cruze, Chevrolet Equinox, Chrysler 300, GMC Acadia, Hyundai Tucson, Mazda CX-9, Mazda MX-5 Miata, Mercedes-Benz GLC, Nissan Maxima, Porsche Cayenne, Subaru Impreza

Our survey revealed that infotainment systems are another trouble spot in new or newly redesigned models. These systems provide audio, phone, and navigation functions and connect to smartphones, allowing drivers to make calls and stream music. Our survey showed that owners of first-year models had twice as many complaints about in-car electronics as owners of models that had no major changes.

The 2017 Subaru Impreza is one of the starkest examples. The 2016 model was rated as Very Reliable, but after the car was redesigned for the 2017 model year, a full 20 percent of the new version's owners reported problems with the in-car electronics. These include the rearview camera freezing or having a blank screen, no radio reception, and problems pairing to a smartphone. Another redesigned model with buggy in-car electronics is the GMC Acadia: Owners say that the display screen goes blank and that the rear entertainment system doesn't always work.

Not surprisingly, entirely new models tend to experience even more growing pains than models that have been updated or refreshed. The new models usually have many more unproven components and engineering approaches, and it can take automakers a couple of years to smooth over the rough spots that appear once these cars are on the road.

Owners of the 2017 Jaguar F-Pace, for instance, complain about problems ranging from a leaking differential to the InControl infotainment system, which can suffer from a frozen screen or fail to start up. Other recent new models that fared poorly in their first year include the 2015 Jeep Renegade (problems with the transmission, in-car electronics, power equipment, and drive system),

2016 Tesla Model X (falcon-wing doors and paint and trim, among others), and 2016 Volvo XC90 (in-car electronics, power equipment, brakes, and noises and leaks).

The problems don't always surface right away and, in a phenomenon we've dubbed "the sophomore slump," might not show up until well into the second year after a new model is introduced.

The Chevrolet Cruze, for example, was redesigned for the 2016 model year and, in last year's survey, had outstanding first-year reliability. But the 2016 and 2017 models dropped to below average this year because of power equipment, fuel and emission systems, engine, and transmission problems.

With all the technology and testing available to automakers today, it's reasonable to wonder why they can't work out more of the bugs before they roll out a new model. "Car companies test their prototype vehicles, but mass production and a wide range of real-life driving scenarios multiply the number and nature of problems that can arise in a new model," says Jake Fisher, director of auto testing at Consumer Reports.

Our survey does show that some—but not all—automakers can quickly remedy the problems that have surfaced so that they're mostly gone by the next model year. The 2016 Hyundai Tucson SUV scored poorly with owners because of transmission problems, but complaints about the 2017 Tucson dropped by more than half. Similarly, Honda so improved the in-car electronics in the 2017 Civic that its complaint rate was only a third of that for the 2016 version.

How to Avoid New-Model Remorse

Be patient. Wait a couple of years before buying a new or redesigned model. "Being the first to own that new model can leave people with imperfect technology or without a car to drive while it sits in the shop," Fisher says.

Buy the outgoing version. The model that's being retired is likely to be more reliable than the brand-new one.

Consider leasing. You get the newest features, and the car is always under warranty if anything goes wrong.

Check out the brand's reliability. Even the best automakers can sometimes release problem-prone cars, but a proven track record should reduce your fears. Our brand scores show those that owners have found to be the most and least reliable. (See "How the Brands Stack Up," on page 59.)

Redesigned 2017 Models With Major Growing Pains

These updated cars saw especially big drops in their reported reliability rating when compared with the previous model year.

Buick LaCrosse

2016 MODEL YEAR	2017 MODEL YEAR
⇈	⇊

TROUBLE SPOTS Some owners complained that the eight-speed automatic transmission that replaced the previous six-speed version caused rough shifting. They had problems with the new, nontraditional gear selector and registered their concerns about the infotainment system, complaining that the display goes blank, navigation is buggy, and phones are difficult to pair.

GMC Acadia

2016 MODEL YEAR	2017 MODEL YEAR
⌃	⇊

TROUBLE SPOTS The main complaints from owners targeted the infotainment system, which is plagued by blank screens, a glitchy rearview camera, and an in-dash navigation system that goes kaput. Although the new Acadia retains its six-speed automatic transmission, some owners complained about rough shifting as well.

Subaru Impreza

2016 MODEL YEAR	2017 MODEL YEAR
⇈	⌄

TROUBLE SPOTS The 2017 redesign, with an all-new platform, has below-average reliability compared with the previous generation's outstanding reliability. Problems with the in-car electronics were the Subaru's major downfall. Owners reported that the rearview camera didn't work properly (its screen froze or was blank), the radio got no reception, and there were problems with phone pairing.

PHOTOS: JOHN POWERS

WORSE ⇊ ⌄ ! ⌃ ⇈ BETTER

10 Most & Least Reliable Models

Based on data on 640,000 cars provided by subscribers in this year's Annual Auto Reliability Survey.

RELIABILITY SCORE

92

Kia Niro
OVERALL SCORE **73**
PRICE AS TESTED **$26,805**

90

Subaru BRZ/ Toyota 86
OVERALL SCORE **82/81**
PRICE AS TESTED **$27,117/$25,025**

Lexus ES
OVERALL SCORE **83-84**
PRICE AS TESTED **$43,702-$44,017**

88

Lexus GS
OVERALL SCORE **86**
PRICE AS TESTED **$58,858**

87

Audi Q3
OVERALL SCORE **80**
PRICE AS TESTED **$40,125**

Toyota RAV4
OVERALL SCORE **80-81**
PRICE AS TESTED **$29,014-$29,753**

Lexus IS
OVERALL SCORE **67**
PRICE AS TESTED **$48,149**

Toyota Prius V
OVERALL SCORE **73**
PRICE AS TESTED **$28,217**

Toyota Prius C
OVERALL SCORE **66**
PRICE AS TESTED **$20,850**

86

Infiniti Q70
OVERALL SCORE **83-88**
PRICE AS TESTED **$53,825-$58,655**

16

Chevrolet Camaro
OVERALL SCORE **59**
PRICE AS TESTED **$47,020**
TROUBLE SPOTS: Transmission (minor), in-car electronics, drive system

Mercedes-Benz GLC
OVERALL SCORE **54**
PRICE AS TESTED **$49,105**
TROUBLE SPOTS: Brakes, steering/suspension, power equipment

Jaguar F-Pace
OVERALL SCORE **47**
PRICE AS TESTED **$53,895**
TROUBLE SPOTS: Drive system, in-car electronics, noises and leaks

15

GMC Acadia
OVERALL SCORE **57**
PRICE AS TESTED **$51,585**
TROUBLE SPOTS: In-car electronics, power equipment, drive system

14

Fiat 500
OVERALL SCORE **32-45**
PRICE AS TESTED **$18,600-$26,050**
TROUBLE SPOTS: Brakes, power equipment, in-car electronics

13

Volvo XC90
OVERALL SCORE **58**
PRICE AS TESTED **$56,805**
TROUBLE SPOTS: In-car electronics, power equipment, electrical system

11

Ford Focus
OVERALL SCORE **43-51**
PRICE AS TESTED **$20,485-$40,990**
TROUBLE SPOTS: Transmission, drive system

Ford Fiesta
OVERALL SCORE **42-48**
PRICE AS TESTED **$17,795-$24,985**
TROUBLE SPOTS: Transmission, climate system

7

Cadillac Escalade
OVERALL SCORE **40**
PRICE AS TESTED **$87,360**
TROUBLE SPOTS: Power equipment, transmission (major), climate system

Tesla Model X
OVERALL SCORE **51**
PRICE AS TESTED **$110,700**
TROUBLE SPOTS: Body hardware, paint and trim, climate system

Our Expert Predictions of Reliability for 2018 Cars

THE CONSUMER REPORTS Annual Auto Reliability Survey is the largest of its kind. This year we gathered detailed data from our subscribers on more than 640,000 vehicles, taking a deep dive into the many problems that owners experience. We study 17 trouble areas, from nuisances such as squeaks, rattles, and broken interior trim to serious problems such as major engine or transmission repairs. We then weight the severity of each problem

Subcompact SUVs	
Honda HR-V	71
Mazda CX-3	62
Chevrolet Trax	62
Jeep Renegade	26
Compact SUVs	
Toyota RAV4	87
Honda CR-V	83
Subaru Forester	81
Nissan Rogue	62
Volkswagen Tiguan Limited	56
Ford Escape	55
Jeep Cherokee	53
Kia Sportage	52
Mazda CX-5	46
Hyundai Tucson	22
Midsized SUVs	
Toyota 4Runner	84
Toyota Highlander	83
Hyundai Santa Fe Sport	74
Kia Sorento	60
Hyundai Santa Fe	60
Honda Pilot	59
Nissan Pathfinder	50
Nissan Murano	48
Jeep Wrangler	44
Ford Edge	43
Ford Explorer	41
Jeep Grand Cherokee	28
Dodge Journey	22
Mazda CX-9	20
Large SUVs	
Toyota Sequoia	83
Ford Flex	44

Large SUVs *Continued*	
Dodge Durango	36
Chevrolet Tahoe	28
GMC Yukon	28
Chevrolet Suburban	18
GMC Yukon XL	18
Luxury Entry-Level SUVs	
Audi Q3	87
Buick Encore	83
BMW X1	59
Mercedes-Benz GLA	55
Luxury Compact SUVs	
Lexus NX	80
Infiniti QX50	80
Acura RDX	72
Buick Envision	68
Porsche Macan	67
Cadillac XT5	28
Lincoln MKC	28
Jaguar F-Pace	16
Mercedes-Benz GLC	16
Luxury Midsized SUVs	
Audi Q7	78
Lexus RX	73
BMW X5	65
Mercedes-Benz GLE	51
Lexus GX	49
Infiniti QX60	38
Acura MDX	35
Porsche Cayenne	20
Lincoln MKX	19
GMC Acadia	15
Volvo XC90	11
Tesla Model X	7

Luxury Large SUVs	
Lexus LX	61
Cadillac Escalade	7
Compact Hybrids/Electric Cars	
Kia Niro	92
Toyota Prius V	87
Toyota Prius C	87
Toyota Prius Prime	85
Toyota Prius	85
Chevrolet Bolt	79
Ford C-Max	68
BMW i3	48
Chevrolet Volt	34
Subcompact Cars	
Nissan Versa Note	66
Chevrolet Sonic	57
Honda Fit	53
Fiat 500	14
Ford Fiesta	13
Compact Cars	
Toyota Corolla	85
Hyundai Elantra	81
Mazda 3	81
Kia Soul	75
Kia Forte	74
Honda Civic	46
Volkswagen Jetta	40
Volkswagen Beetle	38
Nissan Sentra	33
Subaru Impreza	30
Mini Cooper	29
Volkswagen Golf	29
Chevrolet Cruze	23
Ford Focus	13

to create a Predicted Reliability Score for each vehicle.

The charts that follow present a Predicted Reliability Score on a 0-to-100 point scale to make it easy to compare models. The average score ranges from 41 to 60, with better than average and worse than average spanning 20 points on either side of that range.

Our predictions for the 2018 models are based on the frequency of problems for each car for the past three model years, provided that the vehicle wasn't changed significantly in that time.

Note: *Predictions for models that have been redesigned or are being introduced for the first time in the 2018 model year, or for those that have limited data, can be found on page 58.*

Midsized Cars	
Mazda 6	74
Ford Fusion	70
Volkswagen Passat	69
Kia Optima	65
Nissan Altima	62
Subaru Legacy	61
Hyundai Sonata	60
Chevrolet Malibu	43

Large Cars	
Toyota Avalon	81
Chevrolet Impala	73
Ford Taurus	54
Nissan Maxima	40
Chrysler 300	35
Dodge Charger	33

Luxury Entry-Level Cars	
Audi A3	51
Acura ILX	20

Luxury Compact Cars	
Lexus IS	87
Audi A4	81
BMW 3 Series	72
Volvo S60	41
Mercedes-Benz C-Class	36
Infiniti Q50	35
Cadillac ATS	29
Acura TLX	25

Luxury Midsized Cars	
Lexus ES	90
Lexus GS	88
Infiniti Q70	86
Mercedes-Benz E-Class	80
Genesis G80	60

Luxury Midsized Cars *Continued*	
Lincoln MKZ	54
Audi A6	51
Audi A7	45
Cadillac CTS	35
Cadillac XTS	31
Buick LaCrosse	17

Ultraluxury Cars	
Tesla Model S	68
Mercedes-Benz S-Class	44

Sports/Sporty Cars Over $40,000	
Lexus RC	85
BMW 2 Series	79
Porsche 911	63
BMW 4 Series	52
Ford Mustang	32
Dodge Challenger	23
Chevrolet Corvette	18
Chevrolet Camaro	16

Sports/Sporty Cars Under $40,000	
Subaru BRZ	90
Toyota 86	90
Buick Cascada	69
Subaru WRX/STi	42
Volkswagen GTI	33
Mazda MX-5 Miata	31

Wagons	
Audi Allroad	81
Subaru Outback	57
Volkswagen Golf Alltrack	57
Volvo V60	47
Volkswagen Golf SportWagen	32

Minivans	
Kia Sedona	79
Toyota Sienna	70
Ford Transit Connect	63
Chrysler Pacifica	48
Dodge Grand Caravan	47

Compact Pickups	
Nissan Frontier	64
Honda Ridgeline	44
Toyota Tacoma	28
Chevrolet Colorado	25
GMC Canyon	25

Full-Sized Pickups	
Toyota Tundra	85
Ram 1500	50
Ford F-150	47
Chevrolet Silverado 2500HD	47
GMC Sierra 2500HD	47
Chevrolet Silverado 3500HD	42
GMC Sierra 3500HD	42
Chevrolet Silverado 1500	24
GMC Sierra 1500	24
Ram 2500	22
Ram 3500	18

Turn the page for our Reliability Predictions for redesigned or entirely new 2018 models.

Reliability Predictions for Redesigned or Entirely New 2018 Models

TO GIVE a reliability rating to models that are brand-new to the market, that have been redesigned, or that we have limited data on, our auto experts look at the overall history of how a brand has performed and the reliability of the previous generation of a particular model, if applicable. We also make judgments by looking at similar models or ones that share components. We can't score new or redesigned vehicles on a 0-to-100 scale but can give them a general reliability rating based on this analysis.

Luxury Midsized SUVs	
BMW X6	Average
Land Rover Discovery	Much worse than average
Land Rover Range Rover	Much worse than average
Land Rover Range Rover Sport	Much worse than average
Maserati Levante	Much worse than average

Luxury Large SUVs	
Toyota Land Cruiser	Better than average
Lincoln MKT	Average
Lincoln Navigator	Average
Buick Enclave	Worse than average
Infiniti QX80	Worse than average
Mercedes-Benz GLS	Much worse than average

Compact Hybrids/Electric Cars	
Hyundai Ioniq	Better than average
Nissan Leaf	Better than average
Toyota Mirai	Better than average
Smart ForTwo	Average
Tesla Model 3	Average

Subcompact Cars	
Toyota Yaris	Much better than average
Toyota Yaris iA	Much better than average
Mitsubishi Mirage	Better than average
Nissan Versa	Better than average
Chevrolet Spark	Average
Hyundai Accent	Average
Kia Rio	Average

Compact Cars	
Toyota Corolla iM	Much better than average
Toyota C-HR	Better than average
Mini Cooper Clubman	Worse than average
Fiat 500L	Much worse than average

Midsized Cars	
Honda Accord	Better than average
Toyota Camry	Better than average
Honda Clarity	Average

Large Cars	
Kia Cadenza	Better than average
Kia K900	Average

Luxury Entry-Level Cars	
Mercedes-Benz CLA	Average

Luxury Compact Cars	
Buick Regal	Worse than average
Jaguar XE	Worse than average
Alfa Romeo Giulia	Much worse than average

Luxury Midsized Cars	
BMW 5 Series	Better than average
Mercedes-Benz CLS	Average
Acura RLX	Worse than average
Cadillac CT6	Worse than average
Jaguar XF	Worse than average
Lincoln Continental	Worse than average
Volvo S90	Worse than average
Maserati Ghibli	Much worse than average

Ultraluxury Cars	
BMW 7 Series	Better than average
Lexus LS	Better than average
Audi A8	Average
Genesis G90	Average
Porsche Panamera	Average
Jaguar XJ	Worse than average

Sports/Sporty Cars Over $40,000	
Audi A5	Better than average
Audi TT	Better than average
Lexus LC	Better than average
BMW 6 Series	Average
Infiniti Q60	Average
Kia Stinger	Average
Mercedes-Benz SL	Average
Mercedes-Benz SLC	Average
Porsche 718 Boxster	Average
Porsche 718 Cayman	Average
Jaguar F-Type	Worse than average
Alfa Romeo 4C	Much worse than average

Sports/Sporty Cars Under $40,000	
Nissan Z	Average
Fiat 124	Much worse than average

Wagons	
Buick Regal TourX	Worse than average
Volvo V90	Worse than average

Minivans	
Honda Odyssey	Average

Full-Sized Pickups	
Ford F-250	Worse than average
Ford F-350	Worse than average
Nissan Titan	Worse than average
Nissan Titan XD	Worse than average

Subcompact SUVs	
Mitsubishi Outlander Sport	Better than average
Ford EcoSport	Average
Hyundai Kona	Average
Mitsubishi Eclipse Cross	Average

Subcompact SUVs *Continued*	
Nissan Juke	Average
Nissan Rogue Sport	Average
Subaru Crosstrek	Average
Fiat 500X	Much worse than average

Compact SUVs	
Mitsubishi Outlander	Better than average
Chevrolet Equinox	Worse than average
GMC Terrain	Worse than average
Jeep Compass	Worse than average
Volkswagen Tiguan	Worse than average

Midsized SUVs	
Volkswagen Atlas	Worse than average

Large SUVs	
Ford Expedition	Average
Chevrolet Traverse	Worse than average
Nissan Armada	Worse than average

Luxury Entry-Level SUVs	
Infiniti QX30	Average
Mini Cooper Countryman	Worse than average
Jaguar E-Pace	Much worse than average

Luxury Compact SUVs	
Audi Q5	Better than average
BMW X3	Average
BMW X4	Average
Volvo XC60	Worse than average
Alfa Romeo Stelvio	Much worse than average
Land Rover Discovery Sport	Much worse than average
Land Rover Range Rover Evoque	Much worse than average
Land Rover Range Rover Velar	Much worse than average

How the Brands Stack Up

THERE WAS MUCH movement among car brands as we scrutinized this year's reliability data to see how the numbers compared with our 2016 survey findings. Our brand-level rankings are based on the average Predicted Reliability Score for each brand's model lineup.

Perennially lagging Chrysler is the biggest mover this year, jumping up 10 places, based on just two models: the below-average 300 sedan and the new Pacifica, which was average. Although Chrysler remains in the lower half of all brands, that represents a huge improvement. The other FCA brands, including Jeep, Ram, and Dodge, also improved.

Also moving up the reliability spectrum were Volkswagen, up six spots, and Subaru, up five spots to rank sixth overall, despite the below-average redesigned Impreza. Three brands dropped significantly: Acura, Mazda, and Cadillac. All of them have limited model lineups, so if just one or two models drop in reliability, it can magnify the impact across the brand.

Excluding Volvo, other European brands have performed well. Most GM brands have dropped. Ford moved up slightly, and Lincoln dropped.

Our Predicted Reliability Score is set on a 0-to-100 point scale, with the average rating falling between 41 and 60 points. Better-than-average ratings or worse-than-average ratings fall on either side of that range.

WORSE BETTER

Rank	Change From 2016	Brand	(Number of Models)	Least Reliable	Range of Reliability Scores (Brand Average in Color Circle)	Most Reliable
1	▲1	Toyota	(14)	Tacoma	28 80 90	86
2	▼1	Lexus	(8)	GX	49 77 90	ES
3	▲2	Kia	(7)	Sportage	52 71 92	Niro
4	–	Audi	(7)	A7	45 68 87	Q3
5	▲4	BMW	(6)	i3	48 62 79	2 Series
6	▲5	Subaru	(6)	Impreza	30 60 90	BRZ
7	▲1	Infiniti	(4)	Q50	35 60 86	Q70
8	▼5	Buick	(4)	LaCrosse	17 59 83	Encore
9	▲1	Honda	(6)	Ridgeline	44 59 83	CR-V
10	▼3	Hyundai	(5)	Tucson	22 59 81	Elantra
11	▲2	Nissan	(8)	Sentra	33 53 66	Versa Note
12	▼6	Mazda	(6)	CX-9	20 52 81	3
13	▲3	Porsche	(3)	Cayenne	20 50 67	Macan
14	▲3	Mercedes-Benz	(6)	GLC	16 47 80	E-Class
15	▲3	Ford	(12)	Focus	13 45 70	Fusion
16	▲6	Volkswagen	(8)	Golf	29 44 69	Passat
17	▲10	Chrysler	(2)	300	35 41 48	Pacifica
18	▼3	Chevrolet	(15)	Camaro	16 39 79	Bolt
19	▼7	Acura	(4)	ILX	20 38 72	RDX
20	▲3	Jeep	(4)	Renegade	26 38 53	Cherokee
21	▲4	Tesla	(2)	Model X	7 37 68	Model S
22	▼2	Lincoln	(3)	MKX	19 33 54	MKZ
23	▼4	Volvo	(3)	XC90	11 33 47	V60
24	▲2	Dodge	(5)	Journey	22 32 47	Grand Caravan
25	▲4	Ram	(3)	3500	18 30 50	1500
26	▼2	GMC	(7)	Acadia	15 28 47	Sierra 2500HD
27	▼6	Cadillac	(5)	Escalade	7 26 35	CTS

To be included in the ranking, a brand must have sufficient survey data for two or more models.
We do not have sufficient data to rate Alfa Romeo, Fiat, Genesis, Jaguar, Land Rover, Maserati, Mini, Mitsubishi, or Smart.

Why a Lower Car Payment Can Be a Costly Mistake

Today's loans might seem, at a glance, like a great deal, but a closer look reveals expensive downsides you need to consider.

by Carla Fried

BUYING A NEW CAR has always been a commitment. But with some auto loans today lasting longer than a lot of marriages, it's especially important to know what you're getting into.

The average new-car loan is now just a smidge under 70 months (5.8 years), and more than a quarter of new-car loans are longer than six years, according to consumer credit reporting agency Experian. All that is a far cry from how your grandfather financed his Buick: In the early 1970s car loans averaged less than three years.

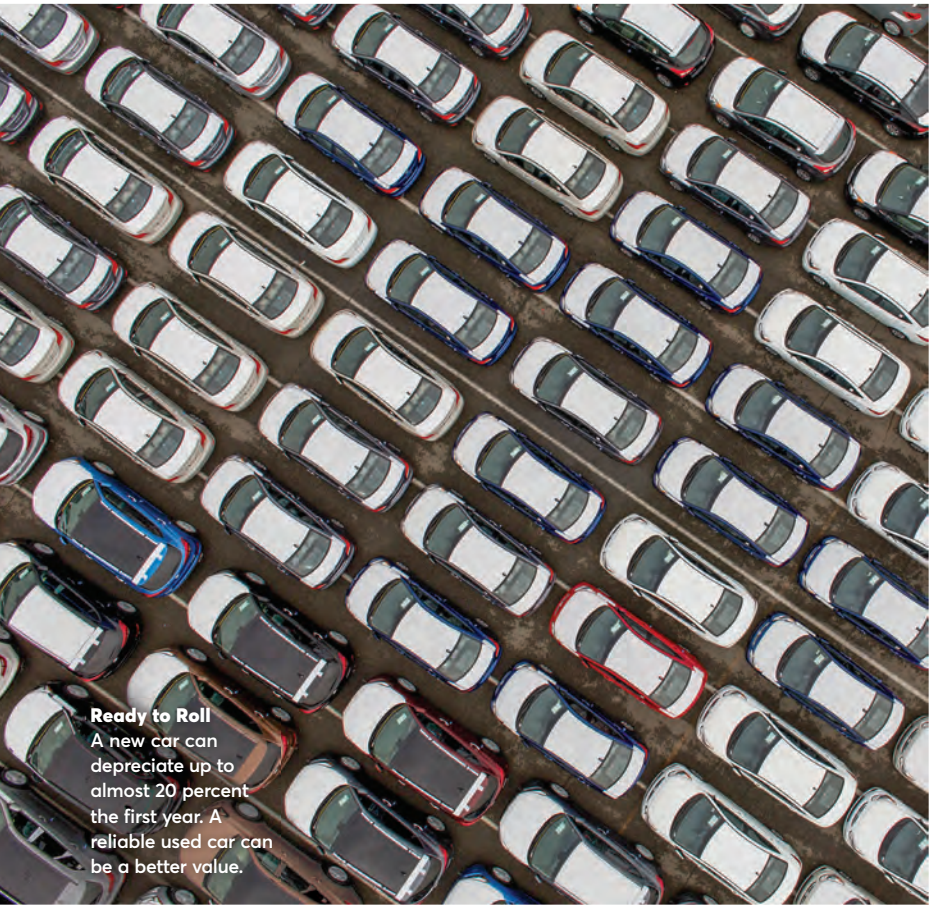
Longer auto loans can lower your monthly payments and bring a more expensive model within reach, but they also have costly downsides that many new-car buyers fail to consider.

"People make the mistake of shopping based on what the monthly cost will be, rather than focusing on the total they will pay," says Greg McBride, chief financial analyst at Bankrate.com. But as with any loan, the longer the term, the more you will end up paying in total interest charges, which can make a significant difference in what you pay to own the car.

Today, loans for new cars average around $30,000. A 60-month loan that charges 3.52 percent interest (a rate recently offered by U.S. Bank) works out to a monthly tab of $546, with total interest charges of $2,761. Extending that loan to 72 months would lower the monthly payment to $463 but raise total interest payments to $3,323.

But many lenders charge a higher interest rate on long-term car loans, which means borrowers who choose them take a harder hit. For example, U.S. Bank recently advertised new-car loans that charge 3.52 percent for a 60-month loan, 4.02 percent for a 72-month loan, and 4.52 percent for an 84-month loan. On a $30,000 loan, total interest payments increase from $2,761 for the 60-month loan to a whopping $5,052 for the 84-month car loan. (See chart on facing page for more details.)

Unless you are the rare borrower who qualifies for a zero-rate deal, a long-term car loan works against your long-term financial security.



Ready to Roll
A new car can depreciate up to almost 20 percent the first year. A reliable used car can be a better value.

PHOTO: BLOOMBERG/GETTY IMAGES

The Case for Shorter-Term Loans

Keeping these tips in mind will help you avoid auto financing pitfalls (and probably encourage you to avoid long-term car loans).

• **Appreciate depreciation.** The typical new car can lose close to 22 percent of its value in the first year, says Mel Yu, Consumer Reports automotive analyst, and it's all downhill from there. This depreciation is why one of the smartest car-buying moves you can make is to shop for a used car that's known for its reliability, Yu says. That way, the original owner pays for the big up-front depreciation hit. Have it inspected by a mechanic before you buy, so you know you won't be saddled with heavy repair costs. In July the average used-car buyer spent about 45 percent less than the average new-car buyer.

• **Keep it to four years.** If you do finance, stick to a car budget that you can afford to pay off in no more than 48 months, or four years, says financial planner David Haas of Cereus Financial Advisors in Franklin Lakes, N.J. "If it's a used car with just a few years on it, you can probably get at least another 10 years out of it. That gives you a full six years or more of driving without making a monthly payment, allowing you to put that money toward other financial goals." This strategy will also help you avoid buying more car than you can really afford.

• **Avoid negative equity.** Though the size of your down payment affects your equity, so does the length of the loan: The longer your loan term, the longer it takes for the car to be worth more than you owe. That means that if you're in the early stages of a long-term loan with a low down payment and your car is stolen or totaled in an accident, you could owe a lot more on the car than it's worth. Insurance payouts are based on a car's depreciated market value, so you'll be left holding the bag.

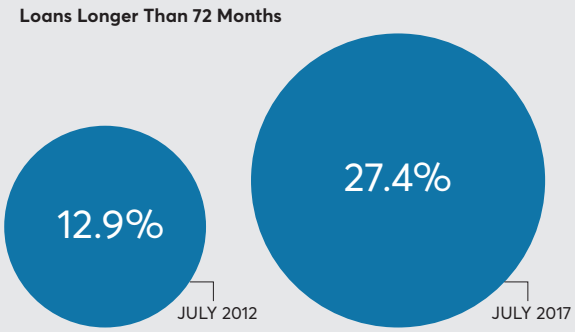
• **Focus on the real bottom line.** Don't be distracted by "affordable" monthly payments that are invariably based on long-term loans. Instead, look at the total cost of your car based on different loan terms. Using an online calculator will help you find your budget sweet spot so that you can look for the best deals at your price.

The Real Price of Long-Term Auto Loans

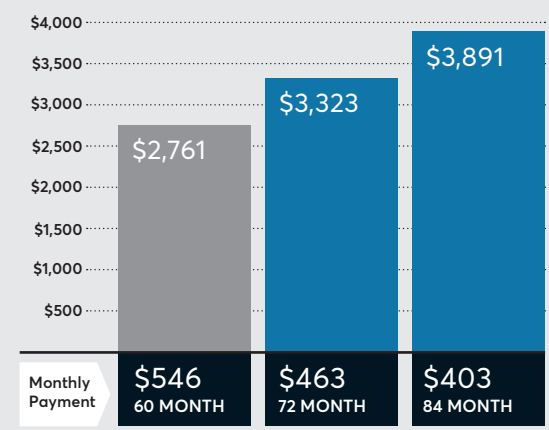
Everybody wants a lower monthly car payment, but taking out a long-term loan is not the best way to get one. These charts illustrate the increase in long-term loans and how they almost never save you money in the end.

New-car loan terms are getting longer …

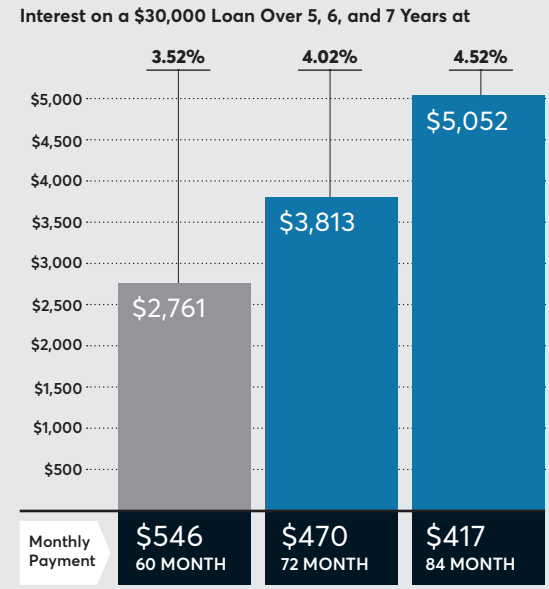
Source: Experian Automotive.



Which means they cost consumers more, even at the same interest rate …



But most lenders charge a higher rate for longer loans, sending the total cost skyward.



We conduct more than 50 tests on each vehicle at our 327-acre Auto Test Center. For complete road tests, go to **CR.org/cars**.

When Bigger Really Is Better

The roomy Volkswagen Tiguan is short on fun-to-drive flair, but it excels as a family-friendly vehicle.

ONCE AMONG the smallest of SUVs, the redesigned Tiguan has grown into one of the biggest in its category, offering drivers and passengers plenty of interior space and good outward visibility. Despite its new girth, the Tiguan remains one of the better-handling small SUVs when tackling turns. At the same time, VW was able to boost the Tiguan's fuel-economy numbers to 25 mpg overall on regular gas, a strong showing for its class, especially considering its size.

Controls are a model of clarity, including the intuitive touch-screen infotainment system. The front seats are comfortable and supportive, but it's the rear seat that truly stands out among rivals for its legroom. However, the available third-row seat is cramped and best-suited as a kid-only zone. Storage bins and other thoughtful details abound.

On the road, the Tiguan has a low-key nature as one of the slower SUVs in its class. But the turbo four-cylinder engine is still responsive, offering ample power at modest speeds, and its eight-speed automatic transmission shifts smoothly. The Tiguan absorbs pavement irregularities nicely, keeping occupants mostly unruffled when driven over rough roads. A coarse note when the engine is revved is the only intruder when it comes to cabin noise.

Automatic emergency braking, forward-collision warning, blind-spot warning, and rear cross-traffic warning come standard on all but the base S trim.

COMPACT SUVS

Volkswagen Tiguan

OVERALL SCORE **65**

ROAD-TEST SCORE 84

HIGHS
Generous interior, easy controls, access, visibility, fuel economy

LOWS
Acceleration, spotty Volkswagen reliability

POWERTRAIN
184-hp, 2.0-liter four-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

FUEL
25 mpg on regular gas

PRICE AS TESTED
$31,645

Bred to Thrill

The Italian-stallion Alfa Romeo Stelvio proves to be a one-trick pony focused on high performance over daily livability.

ALFA ROMEO'S new Stelvio is stimulating to drive and has special appeal for those in search of a rewarding road experience. But for daily driving needs, we found this mechanical sibling of the Giulia ill-suited for everyday use. The Stelvio excels when driven with gusto; the turbocharged engine delivers thrilling acceleration accompanied by a pleasant exhaust snarl. The transmission shifts quickly and smoothly when pressed on the road. But drive it more sedately and the transmission can stumble.

Handling is the Stelvio's real strength. It turns through corners expertly, with quick, precise steering that rewards drivers who want to explore new roads—especially those that twist and turn. While the ride feels slightly jittery in general, the suspension does a good job of absorbing bumps. This sporty compact SUV was built for the racetrack, not for suburban side streets or grocery-store parking lots. In stop-and-go traffic, the touchy brake pedal makes it a challenge to stop smoothly.

The Stelvio achieves good fuel economy (24 mpg overall) for the luxury compact SUV segment. But daily annoyances abound: It has limited seat-adjustment range, a snug interior, frustrating controls, and obscured rear visibility. The parking sensors are hyperactive, and the lane-departure warning emits a startling bark through the speakers. And the Stelvio's reliability is uncertain based on the woeful track record of Fiat Chrysler Automobiles.

LUXURY COMPACT SUVS

Alfa Romeo Stelvio

OVERALL SCORE **51**

ROAD-TEST SCORE 74

HIGHS
Handling, fuel economy, style, character

LOWS
Controls, visibility, tight interior, limited seat adjustments, touchy brake pedal

POWERTRAIN
280-hp, 2.0-liter four-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

FUEL
24 mpg on premium gas

PRICE AS TESTED
$52,040

Interior Luxury With a Rough Ride

The redesigned Volvo XC60 has a plush cabin and standard advanced safety gear, but a stiff ride might keep you from falling in love.

ALTHOUGH THE XC60 boasts an elegant interior and has the latest in advanced safety features, it suffers from a stiff ride and frustrating controls.

The 250-hp turbo four-cylinder engine accelerates nicely from a standing start, but the Volvo isn't the swiftest in the luxury compact SUV class. The eight-speed automatic transmission shifts smoothly in most cases, but at lower speeds some gear shifts can be harsh.

We measured 23 mpg overall (on premium gas), which isn't a standout.

Volvos typically have a stiff ride over bumps and potholes, and the XC60 is no different. The quiet cabin also tends to be disrupted by an unpolished engine growl. Both traits are a disconnect from what you might expect from a luxury SUV.

Handling is responsive and secure, but the XC60's lackluster character won't inspire drivers to take the long way home.

The interior, with high-quality leather, matte wood, and brushed aluminum, feels luxurious. The front and rear seats are comfortable and supportive, even for long trips.

The inviting and high-tech infotainment system resembles a tablet computer, and it serves as the command center for climate, audio, and phone controls. But its menu structure and multiple taps, swipes, and scrolls make using the system a frustrating and distracting experience. Volvo makes forward-collision warning standard, but blind-spot warning is optional.

LUXURY COMPACT SUVS

Volvo XC60

OVERALL SCORE **66**

ROAD-TEST SCORE 79

HIGHS
Seat comfort, fit and finish, braking, standard advanced safety features

LOWS
Stiff ride, maddening controls

POWERTRAIN
250-hp, 2.0-liter four-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

FUEL
23 mpg on premium gas

PRICE AS TESTED
$50,040

Faster, Sleeker, Sharper

The all-new Toyota Camry sticks to its winning formula while improving its fuel economy.

THE NEW CAMRY offers sleeker styling, but it's the improved fuel economy and handling, plus standard advanced safety systems, that distinguish it among the crowd of midsized sedans.

Fuel-economy gains come courtesy of a 203-horsepower, four-cylinder engine combined with a new eight-speed automatic transmission.

The Camry achieved 32 mpg overall, equaling its much smaller Corolla cousin. It's also one of the quickest in its class. But the engine gets raspy and loud when revved, and the transmission suffers from some rough shifts.

Nevertheless, the ride is very comfortable—as with past Camrys—and soaks up bumps easily. Its handling has been sharpened thanks in part to responsive steering. This new Camry feels almost spry when it's going around corners.

The sleeker styling has a drawback, however; you'll need to duck to get into the low-slung car. But once settled into the spacious and nicely padded front seats, there's ample leg and headroom. Most of the controls are easy to use, and interior materials have been upgraded. The Camry's rear seat isn't as roomy as in the last generation.

All 2018 Camrys come with forward-collision warning and automatic emergency braking, along with pedestrian detection and lane-departure warning.

However, blind-spot detection isn't standard, so consumers who want the feature will have to choose an option package.

MIDSIZED CARS

Toyota Camry

OVERALL SCORE **87**

ROAD-TEST SCORE 86

HIGHS
Fuel economy, braking, controls, advanced safety features

LOWS
High-rpm engine noise, transmission refinement, low stance hurts access

POWERTRAIN
203-hp, 2.5-liter four-cylinder engine; 8-speed automatic transmission; front-wheel drive

FUEL
32 mpg on regular gas

PRICE AS TESTED
$26,364

PHOTOS: JOHN POWERS

Ratings › **Midsized Mobility** With our latest Annual Auto Survey (see page 52 for more), our Overall Score and predicted-reliability and owner-satisfaction ratings have been updated.

WORSE — BETTER

RECOMMENDED

Recommended	Make & Model	Overall Score	Price	Survey Results		Safety	Road-Test Results									
			As tested	Predicted reliability	Owner satisfaction	Front-crash prevention	Road-test score	Overall mpg	Acceleration 0-60 mph, sec.	Dry braking 60-0 mph, ft.	Avoidance-maneuver speed, mph	Routine handling	Ride	Noise	Seat comfort front/rear	Controls	Luggage, suitcases+duffels/ cargo volume, cu. ft.
	MIDSIZED CARS																
✓	**Toyota Camry** LE (4-cyl.)	87	$26,364	▲	▲	Std./▲▲	86	32	8.0	126	53.5	▲	▲	▲	▲/▲	▲▲	3+1
✓	**Subaru Legacy** 2.5i Premium	81	$24,837	▲	▲	Opt.	89	26	10.2	128	55.5	▲	▲▲	▲	▲/▲	▲▲	3+1
✓	**Kia Optima** EX (2.4L)	81	$25,860	▲	▲▲	Opt.	86	28	8.0	130	51.5	▲	▲	▲	▲▲/▲▲	▲▲	3+2
✓	**Volkswagen Passat** SE (1.8T)	80	$27,485	▲	!	Std./▲	82	28	8.6	129	52.5	▲	▲	▲	▲/▲▲	▲	3+1
✓	**Mazda6** Sport	79	$23,590	▲	▲	Std./▲	79	32	7.5	132	53.0	▲	!	!	▲/▲	▲	3+2
✓	**Ford Fusion** SE (1.5T)	78	$27,720	▲	▲	Opt.	81	24	9.2	125	52.5	▲▲	▲▲	▲	!/▲	▲	3+2
✓	**Hyundai Sonata** SE (2.4L)	73	$23,315	!	▲	Opt.	78	28	9.2	139	50.5	!	▲	▲	▲/▲▲	▲▲	3+2
✓	**Nissan Altima** 2.5 SV	72	$26,890	▲	!	Std./▲▲	71	29	8.4	135	52.0	!	!	▲	▲/▲	▲▲	3+2
	Chevrolet Malibu 1LT (1.5T)	68	$26,790	!	▲	Opt.	80	29	8.4	130	53.0	▲	▲	▲	!/▲	▲▲	3+2
	LUXURY COMPACT SUVs																
✓	**Porsche Macan** S	80	$63,290	▲	▲▲	Opt.	85	19	6.4	130	51.0	▲▲	!	▲▲	▲▲/▲	!	29.0
✓	**Lexus NX** 300	78	$43,284	▲	!	Std./▲▲	74	24	7.5	132	49.5	▲	!	▲	▲/▲	!	28.5
✓	**Audi Q5** Premium Plus	78	$51,570	▲	▲	Std./▲	83	24	6.8	130	52.5	▲	▲	▲	▲/▲	!	27.0
✓	**Acura RDX**	73	$38,990	▲	!	Opt.	75	22	6.6	132	51.0	!	!	▲	▲▲/▲	!	31.5
	Volvo XC60 Momentum ⚠	66	$50,040	▼	▲	Std./▲▲	79	23	8.0	124	52.0	▲	!	▲	▲▲/▲	▼	34.0
	Cadillac XT5 Luxury	59	$51,025	▼	!	Opt.	76	20	7.1	132	53.5	▲	!	▲▲	▲/▲	▼	33.0
	Lincoln MKC Reserve	56	$46,485	▼	!	Opt.	72	19	7.8	125	54.0	!	!	▲	▲/!	!	30.5
	Mercedes-Benz GLC 300 ⚠	54	$49,105	▼▼	▲	Std./▲	81	22	6.8	132	50.0	▲	▲	▲	▲▲/▲	▼	28.0
	Alfa Romeo Stelvio Ti	51	$52,040	▼▼	▲	Opt.	74	24	7.0	132	52.5	▲▲	▲	▲	!/!	▼	26.5
	Jaguar F-Pace Prestige	47	$53,895	▼▼	▲	Opt.	72	20	6.0	129	50.5	▲	!	!	▲▲/▲	!	28.5
	COMPACT SUVs																
✓	**Subaru Forester** 2.5i Premium	84	$27,145	▲▲	▲	Opt.	85	26	8.7	127	52.0	▲	!	!	▲/▲▲	▲▲	35.5
✓	**Honda CR-V** EX (1.5T)	83	$28,935	▲▲	▲▲	Opt.	82	28	8.2	137	52.0	▲	!	▲	▲/▲▲	▲	36.0
✓	**Toyota RAV4** XLE	81	$29,014	▲▲	▲	Std./▲▲	75	24	9.3	135	51.0	▲	▲	▲	!/▲	▲	37.0
✓	**Nissan Rogue** SV	73	$29,920	▲	▼	Std./▲▲	74	24	9.5	134	54.0	!	▲	!	!/▲	▲▲	31.5
✓	**Mazda CX-5** Touring	72	$29,530	!	▲▲	Std./▲	80	24	8.6	133	54.0	▲	▲	▲	▲/▲	▲	30.5
✓	**Kia Sportage** LX (2.4L)	71	$26,720	!	▲	Opt.	78	23	9.6	128	52.5	▲	!	!	▲/▲	▲▲	29.5
✓	**Ford Escape** SE (1.5T)	69	$29,630	!	!	Opt.	75	23	10.1	132	50.0	▲	▲	▲	!/!	▲▲	34.0
	Volkswagen Tiguan SE	65	$31,645	▼	▲	Opt.	84	25	10.3	131	52.0	▲	▲	▲	▲/▲▲	▲	33.0
	Chevrolet Equinox LT (1.5T)	65	$33,730	▼	▲	Opt.	78	25	9.6	132	53.0	▲	▲	▲	▲/▲	▲▲	32.0
	Hyundai Tucson Value (1.6T)	57	$28,670	▼	!	Opt.	79	26	8.4	128	53.0	▲	▲	▲	▲/▲	▲▲	29.5
	Jeep Compass Latitude	50	$30,870	▼	!	Opt.	56	24	9.8	137	53.5	!	!	!	!/!	▲	27.5

HOW WE TEST: Recommended models did well in our **Overall Score,** which factors in **Road-Test Results, Predicted reliability, Owner satisfaction,** and **Safety,** which includes crash-test results and the availability of front-crash prevention features, such as forward-collision warning and automatic emergency braking at city or highway speeds. For these systems, NA means no such system is offered; Opt. means it's available on some versions but not necessarily on the one we tested; and models with standard systems are rated from ! to ▲▲ based on how many of these features are standard. We now deduct points from the Overall Score if a vehicle's shifter is confusing, lacks fail-safes, or is difficult to operate. For full ratings, go to CR.org/cars.

⚠ **ALERT** This vehicle can be outfitted with a semi-autonomous driving package. Consumer Reports believes automakers should take stronger steps to ensure that vehicles with those systems are designed, deployed, and marketed safely. Please heed all warnings and keep your hands on the wheel.

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Merry ... But Not Too Bright

'Tis the season for goofy gift ideas and holiday howlers

How Much Is That Doggie in the Stocking?
If that particular pup isn't included, we'll be just as happy to have one of the others.
Submitted by Sue Lemontre of San Diego

fetching gifts
for furry friends
EXCLUSIVELY OURS™ Pawslife™
49.99
Memory Foam Lounger Pet Bed
• Removable cover for easy cleaning and maintenance
29.99
Orthopedic Foam Dreamer Pet Bed
• Removable bed cover is machine washable
19.99 Each
Faux Suede/Fur Coat
• Available in small, medium and large
Pet Boots ..... 9.99 (Set of 4)
(PUPPY NOT INCLUDED)
(PUPPY NOT INCLUDED)
YOU, BEST GIFTS & BEYOND

Fully Baked Advice
You can never be too specific with baking instructions when it comes to holiday cookies.
Submitted by Travis Sixel of Greenville, Wis.

0g Trans Fat
Simply Goodness
WHITE CHUNK MACADAMIA
Cookie Dough
Nutrition Fact
BAKE FROM FROZEN STATE
BAKING INSTRUCTIONS:
• PREHEAT OVEN: CONVENTIONAL 350°F OR CONVECTION 325°F.
• OVEN TEMPS MAY VARY
• BAKE 10-12 MINUTES
• DO NOT BURN COOKIES
• REMOVE FROM OVEN. ALLOW TO COOL FOR 3 MINUTES BEFORE REMOVING FROM PAN.
• RETURN UNUSED DOUGH TO FREEZER
• ENJOY!
• DO NOT EAT RAW COOKIE DOUGH
PRODUCT CODE 70440
U-D
KEEP FROZEN
DISTRIBUTED BY FUNDRAISING MANAGER
NET WT 2.5 LBS (1.135 kg)
DO NOT BURN COOKIES

Good Clean Fun
Either the last hill was very muddy or these kids tried to sled down the chimney first.
Submitted by Edward Boeder of Naples, Fla.

StainGuide
OxiClean Versatile tackles over 101 different types of stains, is color safe and chlorine free.
Check out the latest tips and tricks below to remove your family's winter stains.

Santa's Other Throne?
Apparently some retailers think nothing says "Merry Christmas" like a toilet under the tree.
Submitted by David Stabnow of Nashville, Tenn.

SHARE

Be on the lookout for goofs and glitches like these. Share them with us—by email at SellingIt@cro.consumer.org or by mail to Selling It, Consumer Reports, 101 Truman Ave., Yonkers, NY 10703—and we might publish yours. Please include key information, such as the publication's name and date.

What's on your mind?

We want to know.

Our goal is a fairer, safer, and healthier marketplace for everyone.
Together we can get there faster.
That's why we want your input and feedback.
Join our **Consumer Reports Insights Panel** today.
It's the easy way to have your say.

Let's start the conversation:

cr.org/panel

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CANADA

Canadian information in 4-page insert

Canada Extra

Cordless Drills **34a**
Autos **34b**
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Recalls **34c**

How to Use the Canada Extra Section

EVERY MONTH, Canada Extra provides Canadian pricing and availability information about products tested for that issue. The ratings in this section are based on this month's reports, but they narrow your choices to the products that are sold in Canada.

You can use this section in either of two ways: Start with the main report, read about the products that interest you, and turn to this section to find whether they're sold–and for what price–in Canada. Or start here, find products sold in Canada whose price and overall score appear promising, and read more about them in the main report and full ratings chart; page numbers appear with each Canadian report. (For some products, the Canadian model designation differs slightly from the one used in the U.S.)

In most cases, the prices we list here are the approximate retail in Canadian dollars; manufacturers' list prices are indicated by an asterisk (*). The symbols shown below identify CR Best Buys or recommended products in the U.S. ratings. "NA" in a chart means that information wasn't available from the manufacturer. We include, in the Contact Info list on page 34b, the manufacturer's web address in Canada so that you can go online to get information on a model you can't find in the stores. (Many products that aren't available in Canadian stores can be bought online.)

We appreciate your support, but we don't take it for granted. Please write to **CanadaExtra@cu.consumer.org** and tell us what you think. We can't reply to every email or implement every suggestion, but with your help we'll try to keep growing to serve your needs.

CR Best Buy Recommended models that offer the best combination of performance and price.

Recommended Models that perform well and stand out for reasons we note.

Cordless Drills

Twelve of the tested cordless drills are available, including 5 of the recommended models. **Report and ratings, pages 8-13**

Rec.	Rank	Brand & Model	Overall Score	Price
		GENERAL-USE *typically 12 volts*		
✓	1	**Bosch** PS32-02	66	$280
✓	2	**Milwaukee** 2407-22	60	$180
	5	**Black+Decker** BDCDDBT120C	45	$85
	7	**Ryobi** HJP004	33	$75
		HEAVY-DUTY *typically 18 to 20 volts*		
✓	1	**DeWalt** DCD991P2	85	$400
✓	2	**Milwaukee** 2705-22	83	$450
$	4	**DeWalt** DCD791D2	67	$300
	6	**Ridgid** R86116K	62	$230
	9	**DeWalt** DCD780C2	57	$260
	10	**Porter-Cable** PCC608LB	54	$150
	12	**Bosch** DDB181-02	50	$140
	14	**Ryobi** P1811	48	$125

› Online subscribers can go to **CR.org/drillratings1217** for complete up-to-date ratings.

Autos

All of the tested vehicles are available in Canada. **Report and ratings, pages 62-64**

Make & Model	Price Range	Acceleration (sec.)				Fuel Economy (liters per 100 km)		
		0-50 km/h	0-100 km/h	80-100 km/h	500 Meters	City Driving	Highway Driving	Overall
MIDSIZED CAR								
Toyota Camry	**$26,390–$40,990**	3.3	8.5	3.8	18.6	11.6	4.8	7.3
LUXURY COMPACT SUVs								
Volvo XC60	**$45,900–$71,150**	3.2	8.4	3.7	18.5	15.3	7.3	10.3
Alfa Romeo Stelvio	**$52,995–$57,495**	3.2	7.4	3.3	17.7	13.8	7.3	9.7
COMPACT SUV								
Volkswagen Tiguan	**$28,925–$39,175**	4.3	10.8	4.8	20.4	14.3	6.7	9.5

TOYOTA CAMRY
PRICE AS TESTED
$26,364 (U.S.)

87
OVERALL SCORE

VOLVO XC60
PRICE AS TESTED
$50,040 (U.S.)

66
OVERALL SCORE

ALFA ROMEO STELVIO
PRICE AS TESTED
$52,040 (U.S.)

51
OVERALL SCORE

VOLKSWAGEN TIGUAN
PRICE AS TESTED
$31,645 (U.S.)

65
OVERALL SCORE

Contact Info

How to reach manufacturers in Canada.

Black+Decker
blackanddecker.ca

Bosch
bosch.ca

DeWalt
dewalt.ca

Milwaukee
milwaukeetool.ca

Porter-Cable
portercable.com

Ridgid
ridgid.com

Ryobi
ryobitools.ca

RECALLS

2003-2006
PORSCHE MODELS
On certain vehicles, the fuel pump flange may develop fine cracks or fissures, which could result in a fuel leak.
Affected: 4,817 2003-2006 Cayenne, Cayenne S, and Cayenne Turbo vehicles.
What to do: Have the dealer replace the fuel pump flange.

2004-2006
MITSUBISHI LANCER
On certain vehicles, the passenger frontal airbag inflator could produce excessive internal pressure during airbag deployment, which can cause the inflator to rupture and allow fragments to be propelled toward vehicle occupants. This could also damage the airbag module and prevent proper deployment.
Affected: 9,552 vehicles.
What to do: Have the dealer replace the passenger-side frontal airbag inflator with a new, non-ammonium-nitrate-based inflator. Note: This campaign supersedes 2015-236, which replaced defective inflators with new inflators ("like-for-like") as a temporary remedy while evaluating a permanent remedy. Vehicles repaired under 2015-236 and unrepaired vehicles covered by 2015-236 will now receive the permanent remedy airbag inflator type.

2004-2007
VOLKSWAGEN TOUAREG
On certain vehicles, the fuel pump flange may develop fine cracks or fissures, which could result in a fuel leak.
Affected: 4,170 vehicles.
What to do: Have the dealer inspect for cracks and replace the fuel filter flange if cracks are found. If no cracks are detected, a protective cover will be applied to the filter flange to prevent oxidization and future formation of cracks.

2007-2012
NISSAN VERSA
On certain vehicles, long-term exposure to certain temperature and humidity conditions could eventually degrade the propellant contained in the driver frontal airbag and cause the airbag to deploy with more force than normal. As a result, fragments could be propelled toward vehicle occupants, and the airbag assembly could be damaged, preventing proper function.
Affected: 111,411 vehicles.
What to do: Have the dealer replace the driver frontal airbag inflator. Notes: The Canadian climate results in the propellant degrading slowly. The recall is being conducted as a precaution to address future risk and is expected to replace airbag inflators before their function would be affected. This campaign affects 2007-2012 Versa hatchback models and 2007-2011 Versa sedan models. The 2012 model year Nissan Versa sedan is not involved.

2007-2013
MITSUBISHI OUTLANDER
On certain vehicles, water may drain from the windshield cowl area, collect in the area of the wiper motor breathing hole, and enter the wiper motor. Over time, this could result in corrosion and/or an electrical conduction failure, both of which could result in the wiper motor not operating.
Affected: 42,283 vehicles.
What to do: Have the dealer replace the wiper motor with an upgraded wiper motor that will prevent water intrusion.

2009-2016
VOLKSWAGEN MODELS
On certain vehicles, there could be an interruption in electrical power to the fuel pump control module, causing the fuel pump to run continuously. This may result in a drained battery and/or a no-start condition, or cause a loss of motive power while the vehicle is in motion.
Affected: 19,508 2006-2010 Passat and 2009-2016 CC vehicles.
What to do: Have the dealer replace the fuel pump control module and relocate it within the vehicle.

2011-2013
BMW MODELS
On certain vehicles, the housing of the driver's frontal airbag inflator may have been incorrectly welded during manufacturing and could separate from the base plate during an airbag deployment, and metal fragments could be propelled toward vehicle occupants.
Affected: 886 2011-2012 X3 and 2012-2013 6 Series vehicles.
What to do: Have the dealer replace the driver's frontal airbag. Notes: This is an expansion of recall 2016-461. For 6 Series vehicles, only 2012-2013 model year M6 Cabriolets and 2013 model year M6 Coupes are involved in this campaign.

2011-2014
CHRYSLER, DODGE, AND JEEP MODELS
On certain vehicles equipped with electro-hydraulic power steering ("EHPS"), the alternator may fail suddenly, causing the engine to stall.
Affected: 29,625 2011-2014 Chrysler 300 and Dodge Challenger, Charger, and Durango; and 2012-2014 Jeep Grand Cherokee vehicles.
What to do: Have the dealer inspect the part number on the alternator and replace the alternator as necessary. Note: Only specific engine and alternator combinations are affected by this campaign.

2011-2014
DODGE AND JEEP MODELS
On certain vehicles, a brake booster shield may have been incorrectly installed as part of recall P14/2014-112. This could allow water to get inside the brake booster. In the event the water freezes, this could limit the braking ability of the vehicle.
Affected: 42,034 2011-2014 Dodge Durango and Jeep Grand Cherokee vehicles.
What to do: Have the dealer inspect the installation of the brake booster shield and perform repairs as necessary.

2011-2015
DODGE JOURNEY
On certain vehicles, an electrical short could occur in the steering wheel wiring harness, resulting in an inadvertent deployment of the driver frontal airbag.
Affected: 120,336 vehicles.
What to do: Have the dealer inspect the steering wheel wiring and replace it as necessary. A protective covering will also be installed on the wiring harness.

RECALLS *Continued*

2014-2015
FORD AND LINCOLN MODELS
On certain vehicles, improperly tempered bolts may have been used to install certain seats, seatbacks, seat-belt buckles, or seat-belt anchors, due to a manufacturing issue. This could compromise the structural integrity of the seat and/or seat-belt system's performance in a sudden stop or crash.
Affected: 20,681 2014 Ford E350 and F150, and 2014-2015 Escape; and 2015 Lincoln MKC vehicles.
What to do: Have the dealer inspect the bolts, and remove and replace as necessary. Note: Only E-350 Extended Wagon models with 11-, 12-, or 15-passenger seating configurations are involved in this recall.

2015
VOLKSWAGEN JETTA
On certain vehicles, the factory-installed block heater could overheat during use, which could increase the risk of fire.
Affected: 534 vehicles.
What to do: Have the dealer inspect and, if necessary, install a new block heater.

2015-2017
FORD MODELS
Certain vehicles equipped with rear inflatable seat belts may fail to conform to Canada Motor Vehicle Safety Standard (CMVSS) 210, "Seat Belt Assembly Anchorages." The left-rear inflatable seat-belt buckle may have been assembled with a rivet that was improperly staked, allowing it to separate from its mounting bracket during a crash.
Affected: 15,715 2015-2017 F150, and 2017 F250 Super Duty and F350 Super Duty vehicles.
What to do: Have the dealer inspect the left-rear seat-belt buckle rivet and replace the seat-belt buckle assembly if necessary.

2016
MAZDA6
On certain vehicles where there is excessive weld spatter on the front-passenger seat frame, the occupant sensor wire harness may rub against the weld splatter and cause an electrical short, resulting in a loss of power steering assist and/or a deactivation of the entire airbag system.
Affected: 2,886 vehicles.
What to do: Have the dealer affix a protective pad to the seat frame to prevent the wire harness from chafing. If the harness has already been damaged, have the dealer also apply insulating tape on the harness. If the harness has been damaged beyond repair, the dealer should replace both the bottom seat cushion containing the sensor and the harness. Note: The airbag warning light, along with other malfunction indicator lights, will illuminate in the instrument cluster if this condition is present.

2016-2017
MERCEDES-BENZ MODELS
On certain vehicles, the engine control unit may be out of specification, which may result in the engine shutting down when applying the brakes just before stopping the vehicle and/or with a high engine load combined with an insufficient accelerator pedal actuation following an ECO start.
Affected: 2,775 2016-2017 GLE and GLE Coupe vehicles.
What to do: Have the dealer update the engine and transmission control unit software.

2016-2018
INFINITI MODELS
On certain vehicles, an incorrect fuel pressure map was used in the fuel pump control module (FPCM) software. As a result, the pressure regulator may fail to open to send fuel from the sub tank to the main tank and on to the engine, resulting in a loss of motive power.
Affected: 958 2016-2018 Q50 and 2017-2018 Q60 vehicles.
What to do: Have the dealer update the software for the fuel pump control module.

2016-2018
LEXUS, SCION, AND TOYOTA MODELS
On certain vehicles, the electrical power cords of some dealer-installed block heaters may have been improperly manufactured, causing the wires to contact each other—resulting in a short circuit.
Affected: 36,657 2016 Lexus GS 350, 2016-2017 CT200H, ES300H, ES350, GX460, IS200, IS300, IS350, NX200T, NX300H, RC F, RC300, RC350, RX350, and RX450H, and 2017 LX570; 2016 Scion IM and TC; and 2016 Toyota Venza, 2016-2017 4Runner, Avalon, Camry, Camry Hybrid, Corolla, Highlander, Highlander Hybrid, Prius, Prius C, Prius V, Rav4, Rav4 Hybrid, Sequoia, Sienna, Tacoma, Tundra, and Yaris HB, 2017 Corolla IM and Prius Prime, and 2018 CH-R vehicles.
What to do: Have the dealer cut the plug end from the block heater to disable its operation as an interim measure until an appropriate remedy is found. As an alternative, the owners may choose to have the accessory engine block heater removed and receive a refund of the purchase price of the engine block heater.

2017
HONDA CR-V
On certain vehicles, the fuel feed pipe may not have been properly manufactured. Upon the fuel lines being pressurized, the connection between the feed pipe and fuel hose could separate, resulting in a fuel leak that could cause an engine stall or fire.
Affected: 3,912 vehicles.
What to do: Have the dealer replace the fuel feed pipe and associated single-use retainers.

2017-2018
AUDI A3
On certain vehicles, during engine start-up or low RPMs, the engine air/fuel burning stability strategy may not be robust enough, causing the system to misinterpret conditions and resulting in a loss of motive power.
Affected: 497 vehicles.
What to do: Have the dealer update vehicle software.

2017-2018
JEEP CHEROKEE
Certain vehicles may fail to comply with the requirements of Canada Motor Vehicle Safety Standard (CMVSS) 110, "Tire Selection and Rims." The certification label may not include tire and rim size information as required by the standard. This could lead to the wrong tire and rim size being used.
Affected: 5,736 vehicles.
What to do: Have the dealer replace the certification label.